# Avid® Products

## *System Integration Guide*

*for the IBM® IntelliStation® Z Pro Type 6866-6AU (6AG)*

*Rev A, February 2001*

Avid®

## Copyright and Disclaimer

The following disclaimer is required by Ray Sauers Associates, Inc.:

"Install-It" is licensed from Ray Sauers Associates, Inc. End-User is prohibited from taking any action to derive a source code equivalent of "Install-It," including by reverse assembly or reverse compilation, Ray Sauers Associates, Inc. shall in no event be liable for any damages resulting from reseller's failure to perform reseller's obligation; or any damages arising from use or operation of reseller's products or the software; or any other damages, including but not limited to, incidental, direct, indirect, special or consequential Damages including lost profits, or damages resulting from loss of use or inability to use reseller's products or the software for any reason including copyright or patent infringement, or lost data, even if Ray Sauers Associates has been advised, knew or should have known of the possibility of such damages.

The following disclaimer is required by Videomedia, Inc.:

"Videomedia, Inc. makes no warranties whatsoever, either express or implied, regarding this product, including warranties with respect to its merchantability or its fitness for any particular purpose."

"This software contains V-LAN ver. 3.0 Command Protocols which communicate with V-LAN ver. 3.0 products developed by Videomedia, Inc. and V-LAN ver. 3.0 compatible products developed by third parties under license from Videomedia, Inc. Use of this software will allow "frame accurate" editing control of applicable videotape recorder decks, videodisc recorders/players and the like."

The following notice is required by Altura Software, Inc. for the use of its Mac2Win software and Sample Source Code:



The following notice is required by Ultimatte Corporation:

Certain real-time compositing capabilities are provided under a license of such technology from Ultimatte Corporation and are subject to copyright protection.

Attn. Government User(s). Restricted Rights Legend

U.S. GOVERNMENT RESTRICTED RIGHTS. This Software and its documentation are "commercial computer software" or "commercial computer software documentation." In the event that such Software or documentation is acquired by or on behalf of a unit or agency of the U.S. Government, all rights with respect to this Software and documentation are subject to the terms of the License Agreement, pursuant to FAR §12.212(a) and/or DFARS §227.7202-1(a), as applicable.

Trademarks

AirPlay, AudioVision, Avid, Avid Xpress, CamCutter, Digidesign, FieldPak, Film Composer, HIIP, Image Independence, Marquee, Media Composer, Media Recorder, NewsCutter, OMF, OMF Interchange, Open Media Framework, Pro Tools, Softimage, and tools for storytellers are registered trademarks and 888 I/O, AirSPACE, AirSPACE HD, AniMatte, AudioSuite, AutoSync, AVIDdrive, AVIDdrive Towers, AvidNet, Avid Production Network, AvidProNet, AVIDstripe, Avid Unity, AVX, DAE, D-Fi, D-fx, D-Verb, ExpertRender, FilmScribe, HyperSPACE, HyperSPACE HDCAM, Intraframe, iS9, iS18, iS23, iS36, Lo-Fi, Magic Mask, Matador, Maxim, MCXpress, MEDIArray, MediaDock, MediaDock Shuttle, Media Fusion, Media Illusion, MediaLog, Media Reader, MediaShare, Meridien, NaturalMatch, OMM, Open Media Management, QuietDrive, Recti-Fi, rS9, rS18, Sci-Fi, Sound Designer II, SPACE, SPACEShift, Symphony, Vari-Fi, Video Slave Driver, and VideoSPACE are trademarks of Avid Technology, Inc.

Avid Products System Integration Guide • Part 0130-04829-01 Rev. A • February 2001

# *Contents*


**Chapter 1** **Document Overview**

Who Should Use This Guide . . . . . 1-2
About This Guide . . . . . 1-2
Differences Between IBM Systems . . . . . 1-4
Symbols and Conventions . . . . . 1-5
If You Need Help . . . . . 1-6
If You Have Documentation Comments . . . . . 1-6
Related Information . . . . . 1-7

**Chapter 2** **System Overview**

System Integration Check List . . . . . 2-2
System Overview . . . . . 2-5
- Microprocessor Support . . . . . 2-5
- Memory Support . . . . . 2-6
- Control and Status Indicators . . . . . 2-7
- External Connections . . . . . 2-9
- Internal Drives and Drive Bays . . . . . 2-11
- Internal Disk Controllers . . . . . 2-12
- Keyboard and Mouse . . . . . 2-13
- Monitors . . . . . 2-13
- Service Packs . . . . . 2-14
- System Cautions . . . . . 2-14

Product Overview . . . . . 2-15
- Avid Products . . . . . 2-15
- Avid Board Names . . . . . 2-16

Boards in PCI Slots . . . . . 2-17
Meridien III-U Digital Media Board Set . . . . . 2-17
Meridien III Digital Media Board Set . . . . . 2-17
Meridien II Digital Media Board Set . . . . . 2-18
Meridien 3D DVE Effects Board . . . . . 2-18
Meridien Display Controller Board . . . . . 2-19
Fibre Channel Controller Board . . . . . 2-19
SCSI UL3D/160 Dual-Channel LVD Board . . . . . 2-19
Boards in Meridien I/O Box. . . . . 2-20
Meridien Video I/O Board . . . . . 2-20
Meridien Serial Digital I/O Board . . . . . 2-21
Audio Boards in the Meridien I/O Box . . . . . 2-21
Supported Avid Boards for Each Product Line. . . . . 2-22
Supported Storage Boards . . . . . 2-23
Standalone Fibre Channel . . . . . 2-23
SCSI UL3D/160 Dual-Channel LVD Board . . . . . 2-24
Avid Unity MediaNet . . . . . 2-25
Networking. . . . . 2-25

**Chapter 3 Checking the Basic IBM 6866 System**

Connecting the Basic System. . . . . 3-2
Checking the System . . . . . 3-3

**Chapter 4 Installing Memory, the Avid Board Set, and the Fan Kit**

Required Tools . . . . . 4-2
IBM 6866 System Slot and Memory Locations . . . . . 4-2
Installing Memory. . . . . 4-3
PCI Board Configuration . . . . . 4-4
Avid Board Configurations . . . . . 4-5
Symphony or Symphony Universal Board Configurations . . . 4-5
Avid Composer Board Configurations. . . . . 4-6
Avid Xpress Board Configurations. . . . . 4-7

Installing the Avid Board Set . . . . . 4-8
Before You Start the Installation . . . . . 4-9
Revision Levels . . . . . 4-10
Removing the AGP Graphics Board . . . . . 4-10
Installing the PCI Disk Controller . . . . . 4-11
ATTO Technology ExpressPCI UL3D/160 Dual-Channel Controller . . . . . 4-11
Emulex LP850 Fibre Channel Controller . . . . . 4-12
Installing the Avid Boards . . . . . 4-13
Inspecting the Meridien III-U Digital Media Board Set . . . 4-14
Installing the Flexible Over-the-Top Connector . . . . . 4-15
Installing the Meridien III-U Digital Media Board Set . . . 4-16
Installing a Meridien 3D DVE Effects Board . . . . . 4-17
Removing the Flexible Over-the-Top Connector . . . . . 4-18
Installing the Meridien Display Controller Board . . . . . 4-19
Removing and Installing the Fan . . . . . 4-20
Removing the Fan . . . . . 4-21
Installing the Fan . . . . . 4-23

**Chapter 5 Connecting the Remaining Avid Devices**

Connecting the Application Key (Dongle) . . . . . 5-2
Connecting the Meridien I/O Box . . . . . 5-3
Connecting the 888 I/O and Speakers . . . . . 5-4
Connecting the Display Monitors . . . . . 5-4
Connecting Drives and Other Devices . . . . . 5-5

**Chapter 6 Changing System BIOS and Creating Windows NT Image**

Process Overview . . . . . 6-2
Changing the System BIOS Settings . . . . . 6-3
Installing the Windows NT Image . . . . . 6-5
Restoring the Original Boot Sequence . . . . . 6-8

## Chapter 7 Installing and Verifying Avid System Software

Installation Overview . . . . . 7-2
Installing the Avid System Software . . . . . 7-2
Installing Disk Controller Drivers . . . . . 7-3
Installing the ATTO ExpressPCI Driver . . . . . 7-4
Installing the Emulex LP850 Fibre Channel Driver . . . . . 7-5
Installing the Display Controller Board Driver . . . . . 7-7
Verifying Software Installation . . . . . 7-9
Verifying Avid Board Set Drivers . . . . . 7-10
Verifying and Changing Disk Controller Drivers Status . . . . . 7-12
Changing the Hardware Profile . . . . . 7-14
Testing the System . . . . . 7-14
Running Avid System Test Pro . . . . . 7-14
Running Avid StorEx . . . . . 7-15
Using MediaDock LVD Manager Software . . . . . 7-15
Testing the Avid Software . . . . . 7-16
Creating Troubleshooting Disks . . . . . 7-16
Creating a Windows NT Boot Floppy Disk . . . . . 7-17
Creating a Windows NT Repair Floppy Disk . . . . . 7-18
Uninstalling the Avid Application . . . . . 7-19
Antivirus Applications . . . . . 7-19

## Chapter 8 Troubleshooting

A Troubleshooting Toolbox . . . . . 8-2
Display Monitor Colors or Resolution Incorrect . . . . . 8-3
Second Display Monitor Not Enabled . . . . . 8-3
Striped Sets Cannot Be Seen on System . . . . . 8-4

## Appendix A Regulatory and Safety Notices

FCC Notice . . . . . A-1
Canadian ICES-003 . . . . . A-2
European Union Notice . . . . . A-2
Australia and New Zealand EMC Regulations . . . . . A-4
Taiwan EMC Regulations . . . . . A-4

## Figures


Figure 2-1 Control and Status Indicators . . . . . 2-7

Figure 2-2 External Connections . . . . . 2-9

Figure 2-3 Internal Drive Bay Locations . . . . . 2-11

Figure 2-4 Meridien I/O Box . . . . . 2-20

Figure 2-5 Meridien I/O Box - Two-Channel Audio I/O Board . . . . . 2-21

Figure 3-1 Basic System Connections . . . . . 3-2

Figure 4-1 IBM 6866 System Slot Locations . . . . . 4-2

Figure 4-2 ATTO UL3D/160 LVD Board . . . . . 4-12

Figure 4-3 Emulex LP850 Fibre Channel Board . . . . . 4-12

Figure 4-4 Avid Meridien III-U Digital Media Board Connections . . . . . 4-14

Figure 4-5 Flexible Over-the-Top Connector . . . . . 4-15

Figure 4-6 Avid Meridien III-U Digital Media Board Set . . . . . 4-16

Figure 4-7 Mercedes and Meridien III-U Daughter Board . . . . . 4-17

Figure 4-8 Removing the Flexible Over-the-Top Connector . . . 4-19

Figure 4-9 One of the Meridien Display Controllers . . . . . 4-20

Figure 4-10 Removing the Side Cover . . . . . 4-21

Figure 4-11 Fan in the System . . . . . 4-22

Figure 4-12 Fan Tab Location . . . . . 4-23

Figure 4-13 Extending the Fan . . . . . 4-24

Figure 4-14 Connecting the Fan Power . . . . . 4-24

Figure 5-1 Application Key Connection . . . . . 5-2

Figure 5-2 Meridien I/O Box to System Cable Connection . . . . .5-3

Figure 5-3 Digital Media Board Set to Meridien I/O Box Cable Connection . . . . . .5-3

Figure 5-4 Display Controller Board . . . . . .5-5

## Tables


Table 1-1 Differences Between Skews . . . . . 1-4

Table 2-1 Hardware Integration Check List . . . . . 2-2

Table 2-2 Memory Requirements . . . . . 2-6

Table 2-3 Control and Status Indicators . . . . . 2-8

Table 2-4 External Connections . . . . . 2-10

Table 2-5 Avid Product Revisions . . . . . 2-15

Table 2-6 Peripheral Board Location . . . . . 2-16

Table 2-7 Supported Avid Boards . . . . . 2-22

Table 4-1 Memory Requirements . . . . . 4-3

Table 4-2 Symphony or Symphony Universal Board Configurations . . . . . 4-5

Table 4-3 Media Composer and Film Composer Board Configurations . . . . . 4-6

Table 4-4 Avid Xpress Board Configurations . . . . . 4-7

Table 4-5 Software Revision . . . . . 4-10

# CHAPTER 1

# *Document Overview*

This guide is relevant to the product integration of supported Avid® systems on the IBM® IntelliStation® Z Pro Type 6866-6AU (USA) and the Z Pro Type 6866-6AG (Europe) Professional Workstation (IBM 6866 system) only. As other platforms are qualified, they will either be added to this guide or explained in a separate document.

Table 1-1 on page 1-4 provides a list of the differences between the old IBM system, the 6866-40U (USA) and 6866-40G (Europe), and the new IBM system, the 6866-6AU (USA) and 6866-6AG (Europe).

*This guide is not designed as a replacement for the Avid Certified Resellers class.*

This chapter contains the following sections:

- Who Should Use This Guide
- About This Guide
- Differences Between IBM Systems
- Symbols and Conventions
- If You Need Help
- If You Have Documentation Comments
- Related Information

# Who Should Use This Guide

This guide is intended for Avid Resellers. It describes the procedures necessary to make changes to an IBM 6866 system and how to integrate the needed hardware and application software to produce a fully Avid integrated system for the end user.

# About This Guide

The guide is designed as a reference to answer the "How do I do that?" questions that come with any step involved in integrating the hardware and the application software into an Avid system.

This guide is *not* designed as:

- A Windows NT® troubleshooting guide
- An upgrade guide from the IBM 6889 system to the IBM 6866 system

This guide uses modular chapters that allow the user to find and use information easily.

The Contents lists all topics included in this guide. They are presented with the following overall structure:

- Chapter 1, "Document Overview," provides information about the guide and how you would use it.
- Chapter 2, "System Overview," explains the different Avid systems, types of board sets available, and what you need to do to fully integrate the board sets into an Avid system.
- Chapter 3, "Checking the Basic IBM 6866 System," explains how you would check the IBM 6866 system as it is shipped by IBM.

- Chapter 4, “Installing Memory, the Avid Board Set, and the Fan Kit,” explains how you install memory, the Avid board set, and the fan kit in the system. As there are many configuration possibilities, pay particular attention to the slot allocation tables for each Avid product configuration.
- Chapter 5, “Connecting the Remaining Avid Devices,” explains how you connect the remaining Avid devices to the system before you install the Avid application software.
- Chapter 6, “Changing System BIOS and Creating Windows NT Image,” explains what you need to do to make the proper changes to the BIOS and to create a Windows NT image on the system disk.
- Chapter 7, “Installing and Verifying Avid System Software,” explains how you install and verify the Avid software.
- Chapter 8, “Troubleshooting,” provides examples and solutions of possible problems you might see during the integration of the system.
- Appendix A, “Regulatory and Safety Notices,” provides regulatory and safety notices for the system.

**Do not use this guide to integrate another vendor platform. While much of the content is applicable to other platforms, there are specific steps that are not relevant to other systems.**

# Differences Between IBM Systems

Table 1-1 lists the major differences between the old IBM IntelliStation 6866 system with skews (40U and 40G) and the new IBM IntelliStation 6866 system with skews (6AU and 6AG).

**Table 1-1 Differences Between Skews**

| Old Skews (40U and40G) | New Skews (6AU and 6AG) |
|---|---|
| AGP board is Matrox® 400 (board is removed during integration) | AGP board is Matrox 450 (board is removed during integration) |
| Processor speed 866 MHz | Processor speed 933 MHz |
| Internal system disk is 9 GB | Internal system disk is 18.2 GB |
| Operating system is Windows NT (overwritten with Avid Setup and Product Recovery CD-ROM during integration) | Operating system is Windows® 2000 (overwritten with Avid Setup and Product Recovery CD-ROM during integration) |

# Symbols and Conventions

The system integration guide uses the following special symbols and conventions:

1. Numbered lists, when the order of the items is important.
    a. Alphabetical lists, when the order of secondary items is important.

- Bulleted lists, when the order of the items is unimportant.
    - Indented dashed lists, when the order of secondary items is unimportant.

Look here in the margin for tips.

In the margin, you will find tips that help you perform tasks more easily and efficiently.

*A note provides important related information, reminders, recommendations, and strong suggestions.*

**A caution means that a specific action you take could cause harm to your computer or cause you to lose data.**

**A warning describes an action that could cause you physical harm. Follow the guidelines in this guide or on the unit itself when handling electrical equipment.**

# If You Need Help

If you are having trouble using the system, you should:

1. Retry the action, carefully following the instructions given for that task in this guide.
2. Check the documentation that came with your hardware for maintenance or hardware-related issues.
3. Check the release notes supplied with your Avid application for information on accessing the Avid Web site and the Avid Knowledge Center.
4. For customer support, contact your local Avid Reseller, or contact Avid Customer Support directly:
   - Broadcast customers — call 800-NEWS-DNG (639-7364).
   - Postproduction customers — call 800-800-AVID (2843).

# If You Have Documentation Comments

Avid Technology continuously seeks to improve its documentation. We value your comments about this guide, the Help, the Online Publications CD-ROM, and other Avid-supplied documentation.

Simply e-mail your documentation comments to Avid Technology at

TechPubs@avid.com

Please include the title of the document, its part number, revision, and the specific section you are commenting on in all correspondence.

# Related Information

The following documents provide more information about the hardware and software for your system:

- *User Guide IntelliStation Z Pro Type 6866 Professional Workstation*
- The Avid setup guide for your specific system
- The Avid site preparation guide for your specific system (online version)
- *Avid iS MediaDrive Setup and User's Guide*
- *Avid MediaDrive rS LVD Setup and User's Guide*
- *Avid MediaDock LVD Setup and User's Guide*
- The Avid release notes for your specific system
- *Avid Products Collaboration Guide*

  This guide provides step-by-step instructions for transferring project files, audio files, and graphics and effects files between various Avid products.

  The most recent update of the *Avid Products Collaboration Guide* is provided online. Check the release notes provided with your Avid application for information on accessing online documentation.

# CHAPTER 2

# *System Overview*

Avid uses an IBM IntelliStation Z Pro Type 6866-6AU (6AG) system and different Avid board sets to provide different levels of editing systems. This chapter provides an overview of the IBM 6866 system used by Avid, and explains the types of board sets available, the supported disk controllers, and any basic configuration rules you need to understand to integrate an IBM 6866 system.

This chapter contains the following sections:

- System Integration Check List
- System Overview
- Product Overview

# System Integration Check List

To integrate an IBM 6866 system you should use the integration check list provided in this section. The check list provides a step-by-step list of what is needed to complete the integration of the hardware.

Read the check list completely prior to actually starting the integration. Reading the check list will allow you to understand the flow of what you need to do when you fully integrate and create an Avid product using the IBM 6866 system.

To create an Avid system you need to follow the actions explained in Table 2-1.

**Table 2-1 Hardware Integration Check List**

| Action | Explanation |
|---|---|
| Read the Document Overview. | Read the "Document Overview." This gives you an idea of what is in this document and how you should use it. See Chapter 1. |
| Understand the IBM 6866 system. | Read the "System Overview." This familiarizes you with the IBM 6866 system and some of the precautionary steps you might need to take when maintaining the system. See Chapter 2. |
| Understand the available Avid systems. | Read the "System Overview." This familiarizes you with the available Avid systems and optional PCI boards. See "Product Overview" on page 2-15 and "Avid Board Names" on page 2-16. |
| Check the kit contents. | Inventory the kit sent by Avid to determine if you received all the materials you need to continue. Check the packing slip against the materials received. |

**Table 2-1 Hardware Integration Check List (Continued)**

| Action | Explanation |
|---|---|
| Connect the basic system components. | You need to connect the equipment needed to turn the system on, configure the system software, and access the Windows 2000 operating system (later in this guide you will change the operating system to Windows NT). This would include connecting at least the:<br>• Keyboard and mouse<br>• One monitor<br>• Power cords<br>See "Connecting the Basic System" on page 3-2 for more detailed information. |
| Perform the basic integration of the IBM 6866 system. | Now that you know that the basic IBM 6866 system is working as shipped by IBM, you should install memory, the Avid board set, and the Avid fan kit. Continue reading the Action section in this table for more information. |
| Add memory to the system. | "Installing Memory" on page 4-3 provides memory requirements. The *User Guide IntelliStation Z Pro Type 6866 Professional Workstation*, provided by IBM, explains how to add or exchange memory on the system. |
| Install the Avid board set. | You will need to turn off the system, remove at least one board (the AGP board), and install the Avid board set and all internal cables. Depending upon the system you ordered, you install the following boards:<br>• Disk controllers<br>• Digital media board or board set<br>• 3D board<br>• Meridien™ display controller<br>See "Installing the Avid Board Set" on page 4-8 for more detailed information. |
| Add the fan kit. | Follow the instructions in "Removing and Installing the Fan" on page 4-20. |
| Attach the application key (dongle). | Attach the application key to the parallel port at the rear of the system. See "Connecting the Application Key (Dongle)" on page 5-2. |

**Table 2-1 Hardware Integration Check List (Continued)**

| Action | Explanation |
|---|---|
| Connect the Meridien I/O box and audio device (888 I/O™). | Connect the Meridien I/O box to the system. See"Connecting the Meridien I/O Box" on page 5-3. Use the setup guide for your system to connect the audio device (888 I/O) to the Meridien I/O box. |
| Connect the monitors. | Connect the monitors to the Meridien display controller board. See "Connecting the Display Monitors" on page 5-4. |
| Connect the disk drives. | Connect the drives to the SCSI board or the Fibre Channel (F/C) board. The drive types and how they are configured depend on the customer order. See the setup guide for the specific drives you are using. |
| Connect all power cables. | Make sure the power cables are connected to each device, including disk drives. |
| Change the BIOS and install the Avid disk image. | Chapter 6, "Changing the System BIOS Settings" on page 6-3 explains how to change the BIOS and "Installing the Windows NT Image" on page 6-5 explains how to create a new disk image that overrides the existing Windows 2000 disk image with a Windows NT system that contains almost all the Windows NT features installed. |
| Install and verify the Avid software. | Chapter 7 explains:<br>• How to install the Avid software.<br>• How to verify the installation of all drivers. |
| Test the system. | Test the system to see if the integration went properly. See "Testing the System" on page 7-14. |
| Create disks for troubleshooting the system at a later date. | See "Creating Troubleshooting Disks" on page 7-16. |

# System Overview

The Avid Symphony™, Media Composer® and Film Composer®, and Avid Xpress® systems are built around the 933-MHz IBM IntelliStation Z Pro Type 6866-6AU (6AG) professional workstation (IBM 6866 system). The following sections explain some of the major portions of the IBM 6866 system.

*The system speed might increase without notice. If any hardware or software changes are needed due to a speed increase, this guide will be updated.*

*This guide frequently refers to the* User Guide IntelliStation Z Pro Type 6866 Professional Workstation *as a location for instructions and general information. Keep the user guide handy at all times and pass it on to the customer.*

## Microprocessor Support

Although Avid ships their IBM 6866 systems with one microprocessor, they support up to two Intel® Pentium® III Xeon™ microprocessors with up to 512K of full-speed L2cache memory and 256 KB of advanced transfer cache memory integrated into the microprocessor.

Installation of the second processor is not explained in this guide. See the IBM documentation for installation procedures. If changes in the system BIOS or Windows NT configuration need to occur to allow Avid software to run with dual processors, that information will be provided when needed.

## Memory Support

The memory used by the IBM 6866 system has the following requirements:

- 2.5-V, 184-pin, Rambus® inline memory modules (RIMM).
- Error correcting code (ECC) or non-ECC dynamic random access memory (RDRAM).
- Memory modules are available in 64-MB, 128-MB, and 256-MB RIMMs for a maximum of 2 GB.

*The memory modules must be installed in pairs of the same size.*

- The memory modules are plugged into a memory card that can have four slots or eight slots depending upon the system. The current memory requirements for Avid systems are explained in Table 2-2.

**Table 2-2 Memory Requirements**

| Avid System | Minimum Requirement | Recommended |
|---|---|---|
| Symphony or Symphony Universal | 384 MB | 384 MB |
| Media Composer and Film Composer | 384 MB | 384 MB |
| Avid Xpress | 256 MB | 256 MB |

*See the* User Guide IntelliStation Z Pro Type 6866 Professional Workstation *for instructions on how to install the RIMM memory.*

## Control and Status Indicators

This section explains the function of each control and status indicator located on the front of the IBM 6866 system. Figure 2-1 shows the locations of the control and status indicators, while Table 2-3 describes the function of each control and status indicator.

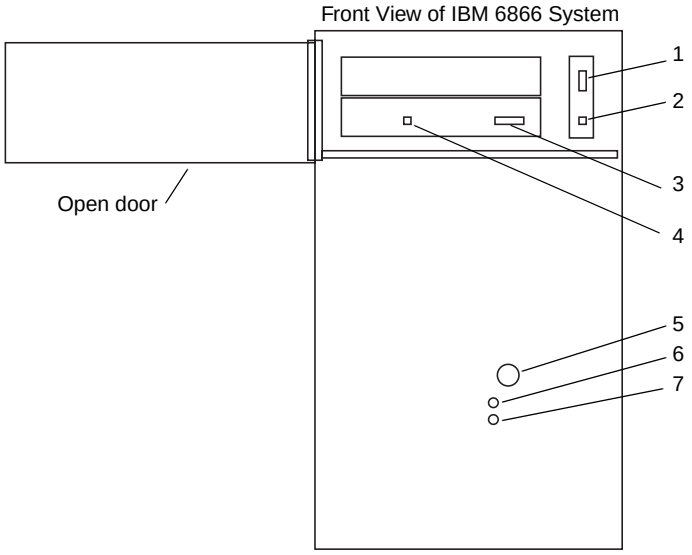



**Figure 2-1 Control and Status Indicators**

**Table 2-3 Control and Status Indicators**

| Control or Status Indicator Number | Function |
|---|---|
| 1 | Floppy drive Eject button |
| 2 | Floppy drive light |
| 3 | CD-ROM drive Eject button |
| 4 | CD-ROM drive light |
| 5 | Power button[a] |
| 6 | Power-on light |
| 7 | Internal hard drive light in drive bay 9 |

a. When you press the Power button to turn off the system, you might have to wait 5 to 10 seconds before the computer turns off.

# External Connections

This section explains the function of each connector located on the rear of the IBM 6866 system. Figure 2-2 shows the connections of the IBM 6866 system, while Table 2-4 describes the function of each connector.

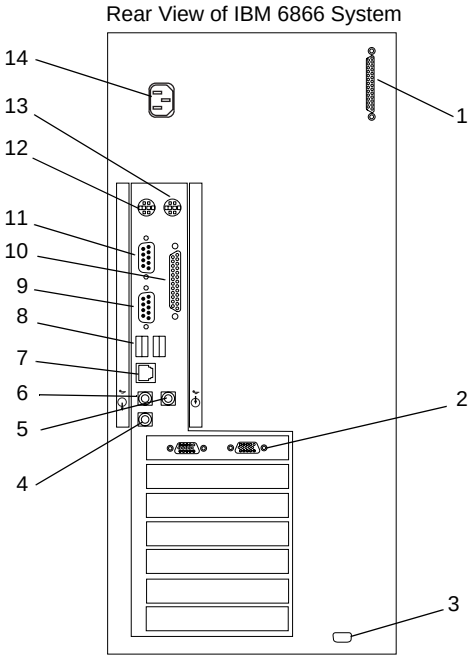



**Figure 2-2 External Connections**

*The AGP slot (shown as number 2) is not used by Avid. Slot allocation is explained in "Installing the Avid Board Set" on page 4-8.*

**Table 2-4 External Connections**

| Connection Number | External Connector Function |
|---|---|
| 1 | External SCSI connector (channel B of internal 7899 Adaptec™ 160-MB Ultra3 SCSI controller) |
| 2 | AGP connector (board is removed by Avid and the slot is *not* used) |
| 3 | MIDI/joystick connection (the BIOS needs to change if you want to use MIDI) |
| 4 | Line Out or headphone connection |
| 5 | Microphone In connection |
| 6 | Audio Line In connection |
| 7 | Ethernet connection |
| 8 | Two USB ports (not used, require Windows 98SE or Windows 2000 to operate) |
| 9 | Serial port 2 connection |
| 10 | Parallel port, used for application key (dongle) |
| 11 | Serial port 1 connection |
| 12 | Keyboard connection |
| 13 | Mouse connection |
| 14 | Power cord connection |

## Internal Drives and Drive Bays

The IBM 6866 system contains removable-media drives as well as an internal hard drive.

- **Removable drives** — a 1.44-MB, 3.5-inch floppy drive and an IDE CD-ROM
- **Internal hard drive** — an 18.2-GB SCSI (the drive size might change at any time without notice)

There are nine internal drive bays located in the IBM 6866 system. Access to drive bays 1 to 3 is through the front door, but you must remove the front panel for access to drive bays 4 to 9 (see Figure 2-3). "Internal Disk Controllers" on page 2-12 explains what type of device is recommended for each drive bay. The *User Guide IntelliStation Z Pro Type 6866 Professional Workstation* provides complete information and instructions for installing internal drives.

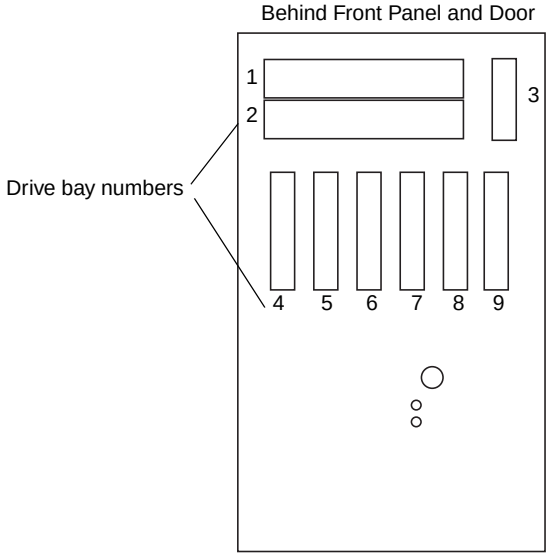



**Figure 2-3 Internal Drive Bay Locations**

## Internal Disk Controllers

There are two internal disk controllers in the IBM 6866 system:

- A two-channel IDE controller. Both channels have the capability of having two devices connected, however, only one channel has a cable connected. The cable has two connectors, one connected to the CD-ROM in drive bay 2, and an empty connector that you could use to connect an IDE device in drive bay 1.

Avid uses the power connector provided for one of the drive bays to power a fan needed to cool the Avid board set.

- A two-channel 7899 Adaptec 160-MB Ultra3 SCSI controller:
  - Channel A connects to the boot drive in drive bay 9, and also to a combination of 1.0-inch hard drives or 1.6-inch hard drives in drive bays 4 to 8 (see the *User Guide IntelliStation Z Pro Type 6866 Professional Workstation* for specific drive combinations). "Internal Drives and Drive Bays" on page 2-11 shows drive bay locations.
  - Channel B connects to the SCSI connector on the rear of the system. Channel B also provides a SCSI connection for drive bay 1 shown in Figure 2-3. Channel B can be used for storing media and connects up to a maximum of 15 SCSI devices, including the SCSI connector in drive bay 1.

*If you need to stripe across two channels to store media, you should not use any SCSI devices on channel B.*

*If you have a SCSI device connected to channel B in drive bay 1, and no other SCSI devices connected externally, you must place an active SCSI terminator on the external SCSI connector at the rear of the system.*

**Any SCSI device placed in drive bay 1 and used by SCSI channel B should be an Ultra3 or Ultra2 device. If you attach a single-ended fast and wide device to SCSI bus B, the speed of SCSI bus B is brought to that level. Avid does *not* recommend the use of a Jaz® type drive on this SCSI adapter.**

## Keyboard and Mouse

Avid replaces the standard IBM keyboard with a customized keyboard featuring labeled keycaps for the Windows NT products.

The three-button IBM mouse is the standard. Avid might or might not replace the standard mouse with a Microsoft® mouse for certain products, but whatever mouse is used, it must have a PS/2-style male connector to plug into the system.

## Monitors

Avid systems support the following three monitors:

- The 21-inch Bin monitor displays the Windows NT operating system desktop.
- The 21-inch Edit monitor displays the Avid software editing environment.
- The third monitor (*Client monitor*) displays full-screen video playback and can be either an NTSC monitor or a PAL monitor. This monitor is optional.

*Only one monitor is standard with the Avid Xpress system. The remaining two monitors can be purchased as options.*

Avid systems also support monitors of other sizes. You can use most 17-inch multisync monitors in place of the 21-inch monitors, but both the Bin and Edit monitors must be the same size and model.

## Service Packs

In previous Avid supported systems, the Service Pack on your system could cause problems depending upon the use of MIDI and dual-processor mode. The IBM 6866 system has no such problem. At this date Service Pack 5 ships with the system and Service Pack 6a is being tested. If problems with specific Service Packs occur, this guide will be updated and posted to the Avid Web site.

## System Cautions

There are three caution areas you should be aware of whenever you are working around the IBM 6866 system:

**You should always use a grounding wrist strap when installing any option in the IBM 6866 system.**

**Whenever you open the cover of the IBM 6866 system to repair or replace an option, be aware that the presence of +5V standby power might result in damage to your hardware unless you unplug the electrical cord from the system before opening the cover.**

**If you lose power while flashing the POST/BIOS, the system might not power up properly. See the *User Guide IntelliStation Z Pro Type 6866 Professional Workstation* for instructions on recovery from a POST/BIOS update failure.**

# Product Overview

You need to have an understanding of the Avid product line and what boards and controllers are supported before you actually start the integration. This information is provided in the following sections:

- Avid Products
- Avid Board Names
- Boards in PCI Slots
- Boards in Meridien I/O Box
- Supported Avid Boards for Each Product Line
- Supported Storage Boards

## Avid Products

This guide is relevant to product integration on the IBM IntelliStation Z Pro Type 6866-6AU (6AG) only, and is applicable to the Avid products listed in Table 2-5:

**Table 2-5 Avid Product Revisions**

| Product | Revision |
|---|---|
| Symphony | 3.1 |
| Symphony Universal | 3.1 |
| MC9000XL NT | 10.1 |
| MC1000XL NT | 10.1 |
| MCOfflineXL NT | 10.1 |
| Film Composer XL NT | 10.1 |
| Avid Xpress XL Elite | 4.1 |
| Avid Xpress XL Deluxe | 4.1 |
| Avid Xpress XL Plus | 4.1 |

# Avid Board Names

The Avid board set supports video, audio, compression, effects, and improved data transfer to the hard drives. The boards are located in the internal PCI slots of the IBM 6866 system or in the Meridien I/O box (an Avid designed standalone box). Table 2-6 lists the board type and location. Explanations of each board (or board set) follow the table.

**Table 2-6 Peripheral Board Location**

| Board Type | Location |
|---|---|
| Meridien III-U digital media board set or<br>Meridien III digital media board set[a] or<br>Meridien II digital media board set (for Avid Xpress only) | PCI slot |
| Meridien 3D DVE effects board (one of two)[b] | PCI slot |
| Meridien display controller board | PCI slot |
| Fibre Channel (F/C) controller board for standalone F/C (optional) | PCI slot |
| SCSI UL3D/160 dual-channel LVD board (optional) | PCI slot |
| Meridien video I/O board | Meridien I/O box |
| Meridien serial digital I/O board (attached to the video I/O board) | Meridien I/O box |
| Meridien eight-channel audio interface board | Meridien I/O box |
| Meridien two-channel audio I/O board | Meridien I/O box |

a. The board set contains a Meridien II digital media board and one of two daughter boards. The daughter board you have determines whether you have the -U version of the Meridien III board set. See "Meridien III-U Digital Media Board Set" on page 2-17 and "Meridien III Digital Media Board Set" on page 2-17 for more information.

b. You can have one of two 3D DVE effects boards. See "Meridien 3D DVE Effects Board" on page 2-18 for more information.

# Boards in PCI Slots

The following sections explain the functions of each peripheral board located in an internal PCI slot.

## Meridien III-U Digital Media Board Set

The Meridien III-U digital media board set is a PCI board and a Meridien II-U daughter board that provides a PCI interface for direct memory access (DMA) on the system, Ultimatte® keying, Pan and Scan resizer, deep defocus, RT Multicam, compression and decompression functions, color correction circuitry, and the use of 24p controlled by the dongle. The board set also interfaces the 3D DVE effects board, and acts as an interface to the Meridien I/O box.

### Flex Circuit

The new flexible (flex) circuit connects the Meridien III-U digital media board set to the 3D DVE effects board as an over-the-top connection. The flex circuit is not needed when you upgrade an existing Meridien II system to a Meridien III-U system in the IBM 6889 system (you can use the hard, over-the-top connector as you did with the Meridien II system).

## Meridien III Digital Media Board Set

The Meridien III digital media board set is a PCI board and a Meridien III daughter board that provides a PCI interface for direct memory access (DMA) on the system, compression and decompression functions, color correction circuitry, and the use of 24p controlled by the dongle. The board set also interfaces the 3D DVE effects board, and acts as an interface to the Meridien I/O box.

Depending upon the system you order, the daughter board can also provide deep defocus and RT Multicam functions.

### Flex Circuit

The new flexible (flex) circuit connects the Meridien III digital media board set to the 3D DVE effects board as an over-the-top connection. The flex circuit is not needed when you upgrade an existing Meridien II system to a Meridien III system in the IBM 6889 system (you can use the hard, over-the-top connector as you did with the Meridien II system).

## Meridien II Digital Media Board Set

The Meridien II digital media board set is a Meridien II PCI board and a Meridien II daughter board that provides a PCI interface for direct memory access (DMA) on the system, specific Avid Xpress features, and compression and decompression functions, all of which are controlled by the dongle. The board set also interfaces the original 3D DVE effects board, and acts as an interface to the Meridien I/O box.

### Flex Circuit

The new flexible (flex) circuit connects the Meridien II digital media board set to the original 3D DVE effects board as an over-the-top connection. The flex circuit is not needed when you upgrade an existing Meridien II system in the IBM 6889 system (you can use the hard, over-the-top connector as you did with the original Meridien II system).

## Meridien 3D DVE Effects Board

The Meridien 3D DVE effects board provides 3D video effects to enhance video production. The board uses one PCI slot. There are two types of 3D DVE effects boards depending upon the system you order:

- Original Meridien 3D DVE effects board (Genie effects board).
- The new Meridien 3D DVE effects board set (Mercedes effects board).

*The original Meridien 3D DVE effects board, Genie, was connected to an Avid designed daughter board when attached to the Meridien I board. This connection is no longer needed when you connect the Genie to the Meridien III or Meridien II board set.*

### Meridien Display Controller Board

The system uses the Meridien display controller board to connect the Bin and Edit monitors using one PCI board. You can distinguish between the older version of the display controller board and the new EDC4 display controller board by looking at the metal PCI bracket. The new EDC4 board has EDC4 labeled on the top of the metal PCI bracket.

**The new display controller board *cannot* be interchanged with an older display controller board without updating the software driver. See "Installing the Display Controller Board Driver" on page 7-7 for more information.**

### Fibre Channel Controller Board

This optional Emulex LP850 F/C controller is used in standalone mode (or for Avid Unity™ MediaNet) to interface and control the F/C drives.

### SCSI UL3D/160 Dual-Channel LVD Board

The optional UL3D board is used with all Avid rS MediaDrives and the Avid MediaDock™ LVD storage system.

*If you attach any single-ended, fast and wide device to the UL3D board, that channel on the SCSI LVD controller changes to fast and wide mode.*

# Boards in Meridien I/O Box

The system uses different boards in the Meridien I/O box to support video and audio (see Figure 2-4). The following sections explain the functions of each peripheral board located in a Meridien I/O box.

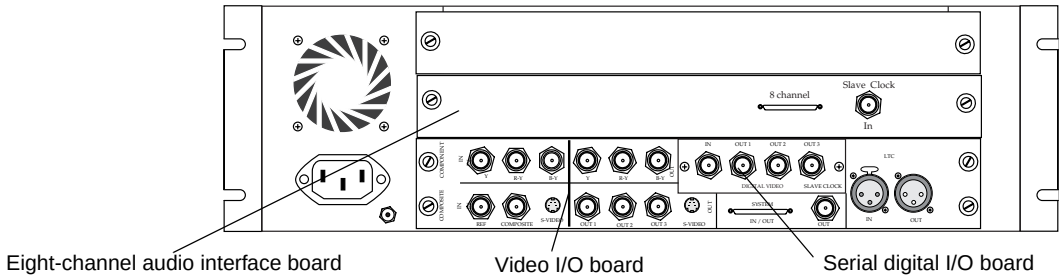



**Figure 2-4 Meridien I/O Box**

## Meridien Video I/O Board

Each system uses a video I/O board. The video I/O board has the following features:

- Provides a parallel digital interface between the digital media board set and the analog I/O.
- Digitizes one channel of composite, component (Y, R-Y, B-Y), or S-Video.
- Converts digital output from the digital media board set to an analog output signal for composite (three outputs), component, and S-Video.
- Acts as a baseboard for the serial digital I/O (SDI) board.
- Provides a genlock capability to allow the video to be locked to an external source such as house sync or to a black burst generator (BBGen).
- Provides an audio slave clock to lock incoming audio to incoming video.

## Meridien Serial Digital I/O Board

The SDI board provides physical inputs and outputs between the video I/O board and a serial digital device. The board also contains the circuitry for the Consumer Source button on the Video Input tool.

## Audio Boards in the Meridien I/O Box

There are two different audio boards used to interface the IBM 6866 system to speakers and video decks depending upon the type of system you order. Both boards are standalone boards and are not attached to the video I/O board.

### Eight-Channel Audio Interface Board

An eight-channel audio interface board (see Figure 2-4) links the system to a separate eight-channel audio I/O device (Digidesign® 888 I/O). The audio I/O device provides connections for up to eight channels of digital audio or eight channels of analog audio.

### Two-Channel Audio I/O Board

A two-channel audio I/O board (see Figure 2-5), normally used with the Avid Xpress systems, provides connections for two channels of digital audio, two channels of analog audio, and a microphone input.

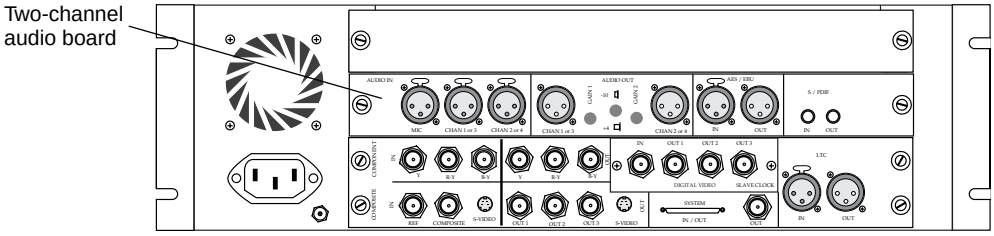



**Figure 2-5 Meridien I/O Box - Two-Channel Audio I/O Board**

# Supported Avid Boards for Each Product Line

Table 2-7 provides a basic cross-reference between the Avid boards (storage not included) and the Avid product line that ships with the IBM 6866 system. It is possible that devices might change from being optional to being standard, so call your Avid representative for the latest configurations.

**Table 2-7 Supported Avid Boards**

| | | Board | | | | |
|---|---|---|---|---|---|---|
| **Product** | **Rev** | **Meridien III-U Board Set** | **Meridien III Board Set** | **Meridien II Board Set [a]** | **Genie** | **Mercedes** |
| Symphony | 3.1 | X | | | | X |
| Symphony Universal | 3.1 | X | | | | X |
| MC9000XL NT | 10.1 | | X | | X | |
| MC1000XL NT | 10.1 | | X | | X | |
| MCOfflineXL NT | 10.1 | | X | | X | |
| Film Composer XL NT | 10.1 | | X | | X | |
| Avid Xpress XL Elite | 4.1 | | | X | X | |
| Avid Xpress XL Deluxe | 4.1 | | | X | | |
| Avid Xpress XL Plus | 4.1 | | | X | | |

a. The Meridien II board set will be used until Avid runs out of the Meridien II daughter boards; at that time the Meridien III board set will be used. Use of the Meridien III board set does not provide any additional editing functions.

# Supported Storage Boards

There are three types of storage options (boards) available for your Avid system:

- Standalone Fibre Channel (F/C)
- SCSI UL3D/160 dual-channel LVD board
- Avid Unity MediaNet

*As drive size and drive speed improve, different F/C devices, MediaDrives, and LVD shuttles will be available for use. Contact your Avid Sales and Product information line at 800-949-2843 for more product information.*

## Standalone Fibre Channel

The standalone F/C system uses an Emulex controller board (see "Fibre Channel Controller Board" on page 2-19) and an F/C disk enclosure that contains up to 10 drives.

*Avid recommends that you 6-way stripe the disk drives in the F/C disk set and use them for storing digitized video. Use the remaining four disk drives or the external SCSI connector for storing digitized audio.*

The following 7.2K rpm and 10K rpm F/C storage devices are supported:

- Shipping F/C devices:
  - MEDIArray™ 18 GB 10K rpm
  - MEDIArray 73 GB 10K rpm
- Nonshipping F/C devices:
  - MSDE 9 GB 7.2K rpm
  - MEDIArray 18 GB 10K rpm (early version)
  - MEDIArray 50 GB 7.2K rpm

## SCSI UL3D/160 Dual-Channel LVD Board

The optional SCSI system uses a UL3D board and supports up to 15 devices per channel. The system supports the following two types of SCSI storage:

- All rS LVD MediaDrives available in rack and stack enclosures.
- The MediaDock LVD storage system.

The following SCSI storage devices are supported:

- Shipping fixed-enclosure devices:
  - rS18™/160 MediaDrive LVD
  - rS36/160 MediaDrive LVD
  - rS73/160 MediaDrive LVD
- Nonshipping fixed-enclosure devices:
  - rS9™ LVD, rS18 LVD, and rS36 LVD
  - iS9 Pro and iS18™ Pro (fast/wide)
  - rS9 Plus and rS18 Plus (fast/wide)
- Shipping MediaDock LVD devices:
  - iS18/160 MediaDrive LVD shuttle
  - iS36™/160 MediaDrive LVD shuttle
  - iS73/160 MediaDrive LVD shuttle
- Nonshipping MediaDock LVD and MediaDock devices:
  - iS9 Plus and iS18 Plus MediaDock LVD shuttles
  - iS18 and iS36 MediaDock LVD shuttles
  - iS9 Plus and iS18 Plus MediaDock Shuttle™ packs (fast/wide)

*If you attach any single-ended, fast and wide device to the UL3D board, that channel on the SCSI LVD controller changes to fast and wide mode.*

### Avid Unity MediaNet

The Avid Unity MediaNet server and storage subsystem use F/C storage components to provide the shared storage environment for up to nine MediaNet clients. MediaNet allows all nine users to simultaneously read and write to the same shared storage workspace.

The following F/C storage devices are supported:

- Shipping F/C devices:
  - MEDIArray 18 GB 10K rpm
  - MEDIArray 73 GB 10K rpm
- Nonshipping F/C devices:
  - MSDE 9 GB 7.2K rpm
  - MEDIArray 18 GB 10K rpm (early version)
  - MEDIArray 50 GB 7.2K rpm

For more information about Avid Unity MediaNet, see the documentation that ships with Avid's Workgroup solutions and Avid Unity MediaNet.

## Networking

Avid does not ship the IBM 6866 system with networking pre-enabled for the user. Avid recommends the user determine the type of network used and set the system up accordingly.

# CHAPTER 3

# *Checking the Basic IBM 6866 System*

Having read Chapter 2, you should now understand the type of IBM 6866 system that you ordered and the board sets that go with each system. You must now check the IBM 6866 system to make sure it functions properly *before* you start the integration procedure.

*The new IBM 6866 system ships with the Windows 2000 operating system. As you boot the system for the first time, you are asked to complete the system build by answering questions about the system and its software. Answer the questions as if you were the customer, but remember that you will be removing the Windows 2000 operating system when you use the Avid Setup and Product Recovery CD-ROM in later chapters.*

*The box used by IBM to ship the IBM 6866 system is not the same box used by IBM to ship the IBM 6889 system. The box that ships with the IBM 6866 system can be used more than once.*

This chapter contains the following sections:

- Connecting the Basic System
- Checking the System

# Connecting the Basic System

You need to connect and check the basic system before you place any Avid boards in the system (see Figure 3-1). This allows you to make sure the system you receive works *prior* to making any changes.

To connect the basic system:

1. Connect the keyboard to the keyboard port at the rear of the IBM 6866 system.
2. Connect the mouse to the mouse port at the rear of the IBM 6866 system.
3. Connect a single monitor to the number 1 connector on the AGP graphics board at the rear of the IBM 6866 system.
4. Connect all power cables.

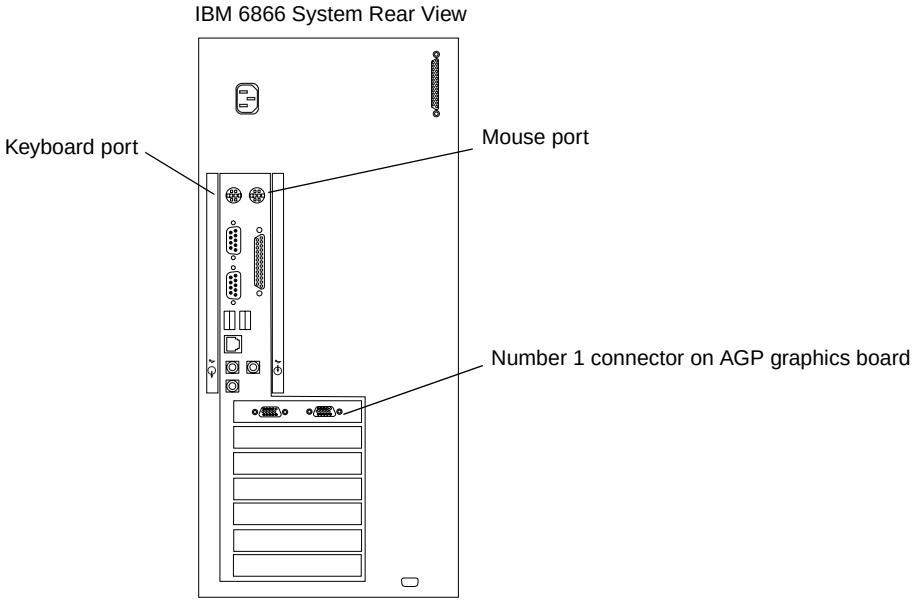



**Figure 3-1 Basic System Connections**

# Checking the System

You should turn on the system and make sure there are no problems with the basic connections you made in "Connecting the Basic System" on page 3-2 before you add memory, Avid boards, or make any BIOS or configuration changes to the IBM 6866 system.

To make sure there are no problems:

1. Turn on the monitor and then the IBM 6866 system.

   You see the SCSI BIOS execute as you did with the Windows NT operating system. After the SCSI BIOS executes, the Windows 2000 startup line executes at the bottom of the screen. You will no longer see selections for different display modes and hardware configurations. Allow the boot process to continue.

*If at a later date you need to see the display modes and hardware configurations screen, you can press the F8 function key.*

2. The system continues to boot for the first time. You are asked questions relative to the software licensing of the Windows 2000 operating system and specific setup procedures. Answer the questions as if you were the customer, but remember that you will be installing a new Windows NT image in a later chapter.
3. Log in to the system using the Administrator account with no password.
4. Once you reach the Windows 2000 desktop, you can assume that your IBM 6866 system is properly connected to the monitor, keyboard, and mouse.
5. Click the Start button, point to Settings, and select Control Panel.

6. Double-click the System icon. The General tab displays the amount of memory in the system in kilobytes (KBs). Use this amount of memory to determine if you need to add memory. Close the Control Panel.
7. Press Ctrl+Alt+Delete to shut down the system.

   A Windows 2000 Security window opens.
8. Click Shut Down and then select the Shutdown option (*not* the Shutdown and Restart option).
9. Turn off the system when the monitor says it is safe to do so. You now know that your system works *before* you start to add boards and make system changes.

**You should press and hold the Power button for 4 or 5 seconds to turn off the system.**

# CHAPTER 4

# *Installing Memory, the Avid Board Set, and the Fan Kit*

You should now install memory (if needed), the Avid board set, and the fan kit into the system. As there are many configuration possibilities, pay particular attention to the slot allocation tables for each Avid product configuration.

This chapter contains the following sections:

- Required Tools
- IBM 6866 System Slot and Memory Locations
- Installing Memory
- PCI Board Configuration
- Avid Board Configurations
- Installing the Avid Board Set
- Removing and Installing the Fan

# Required Tools

You require some or all of the following tools to install boards or memory in the IBM 6866 system:

- A regular flat-blade screwdriver
- Antistatic protection
- A 3/16-inch nutdriver, optional, but it saves time

# IBM 6866 System Slot and Memory Locations

The IBM 6866 system has seven slots; one AGP slot and six PCI slots. Figure 4-1 shows the slot locations of the IBM 6866 system as viewed with the left side of the system off. The memory board is above the AGP slot. Other connectors and sections of the system board are shown as a reference.

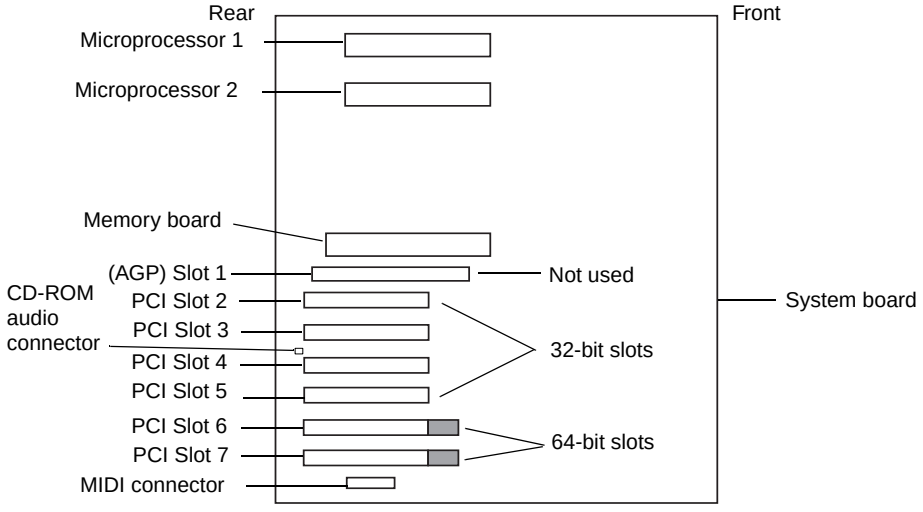



**Figure 4-1 IBM 6866 System Slot Locations**

# Installing Memory

Before you start the installation of the memory you *must* make sure of the following:

- The system was turned off in a proper manner.
- The power cord is removed from the rear of the system.
- You read the *User Guide IntelliStation Z Pro Type 6866 Professional Workstation* for instructions that explain how to open the system and install the PCI boards.
- You use a proper antistatic grounding wrist strap during the installation.

Table 4-1 shows the memory required for each Avid system.

**Table 4-1 Memory Requirements**

| Avid System | Minimum Requirement | Recommended |
|---|---|---|
| Symphony or Symphony Universal | 384 MB | 384 MB |
| Media Composer and Film Composer | 384 MB | 384 MB |
| Avid Xpress | 256 MB | 256 MB |

*Avid preinstalls two page files on the system, a 20-MB page file on drive C and a 576-MB page file on drive D. If you install more than 384 MB of memory you should change the page file size on drive D. The formula for the page file size is:*

*Memory size/2 plus memory size. If memory size is 512 that would be:*

*512/2 (256) plus 512, or 768.*

# PCI Board Configuration

Slot configuration guidelines are mandatory due to PCI bus requirements, and interconnection requirements of the Meridien display controller board, Meridien digital media boards, and the 3D DVE effects combination boards. PCI boards must be installed into the system using configurations explained in this section.

Observe these points for successful installation:

- Figure 4-1 defines the slot numbers as assigned by IBM:
  - The AGP slot is slot 1 (this slot is *not used* by the Avid board set).
  - PCI slots are numbered slots 2 to 7.
- Slots 2 to 5 are 32-bit PCI slots.
- Slots 6 and 7 are 64-bit PCI slots.
- In general you should attempt to install the boards into the lower slots first (slot 7) and work your way up (this prevents you from scraping your knuckles).
- Care must be exercised when installing boards into PCI slots.
  - Never attempt to force the board into a slot.
  - Ensure that each board is seated properly in the PCI slot.
- When you place boards into either slot 3 or 4, be careful not to disturb the CD-ROM audio connection cable toward the rear of the system (could pinch the cable).
- If you install the network software and then place a board into a 64-bit slot area, this may result in the network driver ceasing to function. If this occurs, you will need to reinstall the network driver.
- Secure each board to the expansion bulkhead after installation.

# Avid Board Configurations

The board configurations can be different depending upon what type of Avid system you order. The following sections explain the board configurations by Avid product.

## Symphony or Symphony Universal Board Configurations

Table 4-2 defines the slots that the Avid board set must go into for any Symphony or Symphony Universal system. This table applies to local and shared-storage environments.

**Table 4-2 Symphony or Symphony Universal Board Configurations**

| Slot Number/Type | Symphony or Symphony Universal System |
|---|---|
| 1/AGP | Remove the AGP board when you install the Avid board set |
| 2/PCI | Free slot (no SCSI or F/C controllers) |
| 3/PCI | ICE option |
| 4/PCI | Meridien display controller board |
| 5/PCI | Mercedes effects board |
| 6/PCI | Meridien III-U digital media board set |
| 7/PCI[a] | Free slot, SCSI LVD controller or F/C controller |

a. If you need an F/C controller and a SCSI interface, you should use slot 7 for the F/C controller and the external SCSI connection at the rear of the system.

## Avid Composer Board Configurations

Table 4-3 defines the slots that the Avid board set must go into for any Media Composer or Film Composer system. This table applies to local and shared-storage environments.

**Table 4-3 Media Composer and Film Composer Board Configurations**

| Slot Number/Type | Media Composer or Film Composer System |
|---|---|
| 1/AGP | Remove the AGP board when you install the Avid board set |
| 2/PCI | Free slot (no SCSI or F/C controllers) |
| 3/PCI | ICE option |
| 4/PCI | Meridien display controller board |
| 5/PCI | Genie effects board |
| 6/PCI | Meridien III digital media board set |
| 7/PCI[a] | Free slot, SCSI LVD controller or F/C controller |

a. If you need an F/C controller and a SCSI interface, you should use slot 7 for the F/C controller and the external SCSI connection at the rear of the system.

# Avid Xpress Board Configurations

Table 4-4 defines the slots that the Avid board set must go into for any Avid Xpress system. This table applies to local and shared-storage environments.

**Table 4-4 Avid Xpress Board Configurations**

| Slot Number/Type | Avid Xpress System |
|---|---|
| 1/AGP | Remove the AGP board when you install the Avid board set |
| 2/PCI | Free slot (no SCSI or F/C controllers) |
| 3/PCI | ICE option |
| 4/PCI | Meridien display controller board |
| 5/PCI | Genie effects board |
| 6/PCI | Meridien II digital media board set[a] |
| 7/PCI[b] | Free slot, SCSI LVD controller or F/C controller |

a. Avid can change from the Meridien II board set to the Meridien III board set at any time. The only difference is the attached daughter board.
b. If you need an F/C controller and a SCSI interface, you should use slot 7 for the F/C controller and the external SCSI connection at the rear of the system.

# Installing the Avid Board Set

This section describes the specifics for reliable hardware configuration of Avid products on the IBM 6866 system, and covers only those options that might be physically installed in PCI device slots.

There are no step-by-step procedures for the installation, but the sections are placed in the order you should follow to complete the installation.

The installation is explained in the following key sections:

- Before You Start the Installation
- Revision Levels
- Removing the AGP Graphics Board
- Installing the PCI Disk Controller
- Installing the Avid Boards

**Avid now ships a new Meridien display controller board, EDC4. The new display controller board has EDC4 labeled on the top of the metal PCI bracket (see Figure 4-9). You can see the metal PCI bracket externally at the rear of the system. The previous display controller boards have no label and need a different driver than the EDC4. Drivers for the EDC4 and other display controller boards ship with the Avid software. Installing the correct software is explained in "Installing the Display Controller Board Driver" on page 7-7.**

*Read all information carefully as the Avid hardware devices have interconnect dependencies that might affect installation of multiple boards. Remember to follow the appropriate electrostatic discharge guidelines when handling hardware.*

## Before You Start the Installation

If you did *not* install memory, before you start the installation of the Avid boards, you *must* make sure of the following:

- The system was turned off in a proper manner.
- The power cord is removed from the rear of the system.
- You read the *User Guide IntelliStation Z Pro Type 6866 Professional Workstation* for instructions that explain how to open the system and install the PCI boards.
- You use a proper antistatic grounding wrist strap during the installation.
- You know the revision levels of the software and hardware (see the release notes for your particular system).
- You determine the display controller board you have for use during the driver installation section of this guide.
- You determine the slot locations of each board for your specific system (see "Avid Board Configurations" on page 4-5).

*The following sections are placed in the order that you might want to remove and install boards. In general, you should start putting boards in at slot 7 (if you have disk controllers) and work your way up the slot numbers.*

## Revision Levels

Table 4-5 shows the revision level of the storage drivers and BIOS needed for the IBM 6866 system at the first release of the product.

**Table 4-5 Software Revision**

| Software | Revision |
|---|---|
| BIOS IBM Z Pro 6866 | 33a minimum |
| Windows NT Service Pack | 5 |
| UL2D | Driver PC V1.44uf0 (floppy is marked 1.45, but installs 1.44) |
| UL3D | Driver PC V1.6uf2 |
| F/C (Emulex) | Driver V4-4.442a3; Firmware 3.03 a3 |

## Removing the AGP Graphics Board

The AGP graphics board supplied with the IBM 6866 system *must* be removed when you install a Meridien display controller board. When you remove the AGP graphics board, you must install the Meridien display controller board *before* you turn on the system. Once the Avid Windows NT editing application is installed, the display controller board replaces the platform AGP graphics board and is used as the active graphics board.

**The AGP graphics board should be kept accessible to the system for troubleshooting purposes. It should also be configured in the "original" configuration during the boot procedure.**

# Installing the PCI Disk Controller

This section describes installation and configuration requirements for the PCI disk controllers supported on the IBM 6866 system. The following devices are detailed:

- ATTO Technology ExpressPCI UL3D/160 Dual-Channel LVD
- Emulex® LP850 Fibre Channel

Using the slot allocation tables for each system as explained in "PCI Board Configuration" on page 4-4, install the disk controllers in the proper slots using the descriptions provided in the following sections.

*The onboard 7899 Adaptec SCSI controller is also an Ultra3/160 controller. Drives on channel B of this controller can be used for storing digitized media. Avid recommends that you* do not *stripe across the Ultra3/160 PCI controller and the onboard 7899 controller. See "Internal Disk Controllers" on page 2-12 for more 7899 controller information.*

## ATTO Technology ExpressPCI UL3D/160 Dual-Channel Controller

The ATTO Technology ExpressPCI UL3D/160 is a dual-channel Ultra3 SCSI controller that supports Low-Voltage Differential (LVD) peripherals (see Figure 4-2). The controller is offered to customers as a means to use LVD devices in local storage environments.

- When used as primary storage, the UL3D/160 controller is limited to PCI slot 7 in all configurations.
- This controller is a 64-bit capable board and cannot be installed in PCI slots 2 to 5.

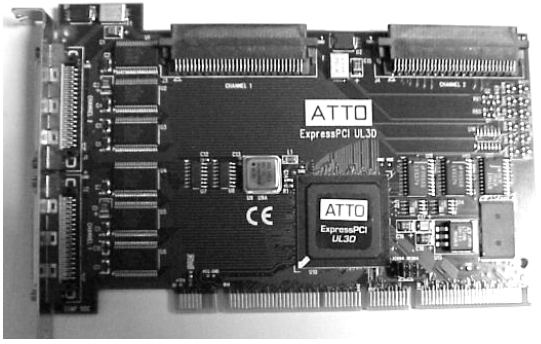



**Figure 4-2 ATTO UL3D/160 LVD Board**

## Emulex LP850 Fibre Channel Controller

The Emulex LightPulse™ LP850 Fibre Channel controller is used for standalone F/C storage (see Figure 4-3). This is also the required controller to support the Avid Unity MediaNet storage environment.

- When used as primary media storage, the LP850 controller is limited to PCI slot 7 in all configurations.
- This controller is a 64-bit capable board, but is used in 32-bit mode only, and cannot be installed in PCI slots 2 to 5.

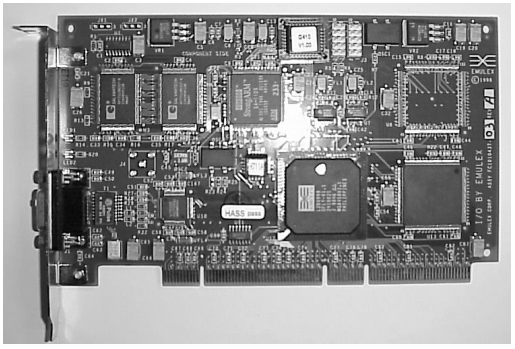


**Figure 4-3 Emulex LP850 Fibre Channel Board**

# Installing the Avid Boards

Using the slot allocation tables for each system as explained in "PCI Board Configuration" on page 4-4, install the boards in the proper slots using the descriptions provided in the following sections.

### Important

The *only difference* between the Meridien III-U board set and the Meridien III board set is the daughter board attached to the digital media board (see "Meridien III-U Digital Media Board Set" on page 2-17). The only difference you can see when the daughter boards are attached to the digital media board is the part numbers.

- Meridien III-U daughter board — PN 0030-03046-01
- Meridien III daughter board — PN 0030-03063-01

**Since both board sets are installed the *same way*, this guide only explains the Meridien III-U board set. You can use the same instructions to install the Meridien III board set.**

## Inspecting the Meridien III-U Digital Media Board Set

Before installing the Meridien III-U (or Meridien III) board set in the system, you must ensure that the daughter board and the Meridien II board are securely fastened together (see Figure 4-4) using a connector, two cables, and five plastic standoffs (on the other side of the board set).

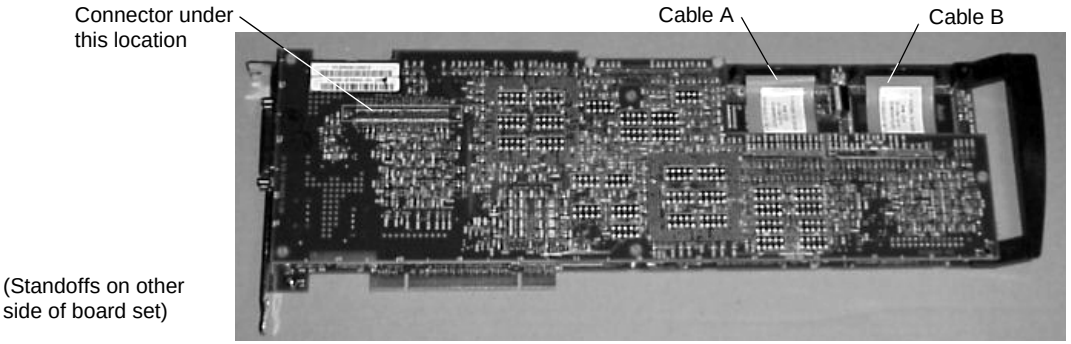



**Figure 4-4 Avid Meridien III-U Digital Media Board Connections**

## Installing the Flexible Over-the-Top Connector

Avid supplies a flexible over-the-top connector used to connect the Meridien digital media board set with one of the two 3D DVE effects boards (see Figure 4-5).

**You can bend the over-the-top connector, but never put a crease in the connector when you bend it. Be very careful when installing and removing the connector.**

Connector J3 connects to the Meridien digital media board set, while J1 and J2 connect to either the Mercedes 3D effects board or the Genie 3D effects board. Figure 4-7 shows the flexible over-the-top connector connecting the boards.

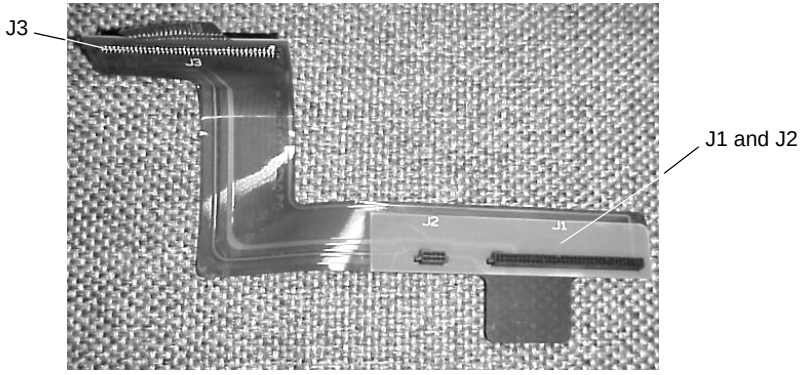



**Figure 4-5 Flexible Over-the-Top Connector**

## Installing the Meridien III-U Digital Media Board Set

The Avid Meridien III-U digital media board set contains the Meridien II digital media board with attached Meridien III-U daughter board (see Figure 4-6). These boards use one slot and should be placed into the system as one board.

Install the completed Meridien III-U (or Meridien III) digital media board set into the recommended PCI slot reflected in the appropriate product board configuration table.

The device driver is installed when the Avid editing product is installed.

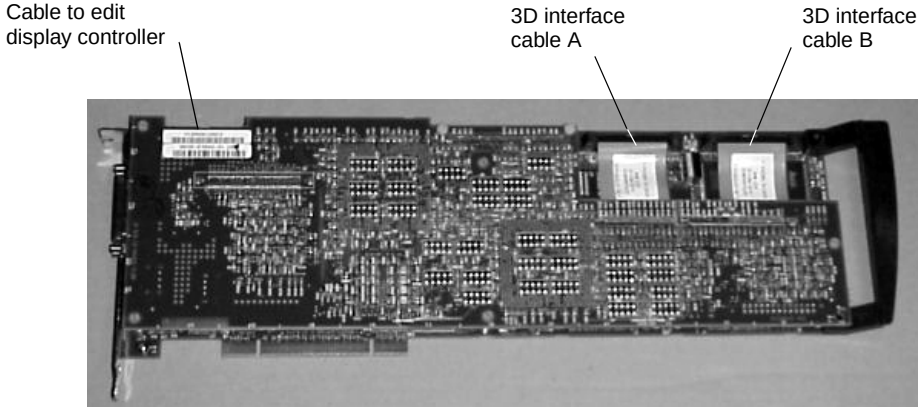



**Figure 4-6 Avid Meridien III-U Digital Media Board Set**

*The Meridien III-U (or Meridien III) board set connects to the Meridien display controller board and to one of the two 3D DVE effects boards. The connection to the display controller board uses a cable, Avid PN 0070-00491-01, while the connection to the 3D DVE effects board uses a new flexible over-the-top connector, Avid PN 0030-03062-01.*

## Installing a Meridien 3D DVE Effects Board

If you have purchased a system that contains a 3D DVE effects board, you should install it now. Depending upon the system, the board will be either a Genie effects board or a Mercedes effects board. Both the Genie effects board and Mercedes effects board take up one PCI slot as shown in the tables in "Avid Board Configurations" on page 4-5.

### Installing the Mercedes Effects Board

The Mercedes effects board is standard equipment on Symphony 3.0 and Symphony Universal 3.0. Interconnection between the Mercedes effects board and the Meridien III-U digital media daughter board is accomplished with a newly designed flexible over-the-top connector.

1. Ensure that the Meridien III-U digital media board set has been assembled and installed in the system (see Figure 4-4).
2. Install and secure the Mercedes effects board into the PCI slot recommended in the product board configuration tables.

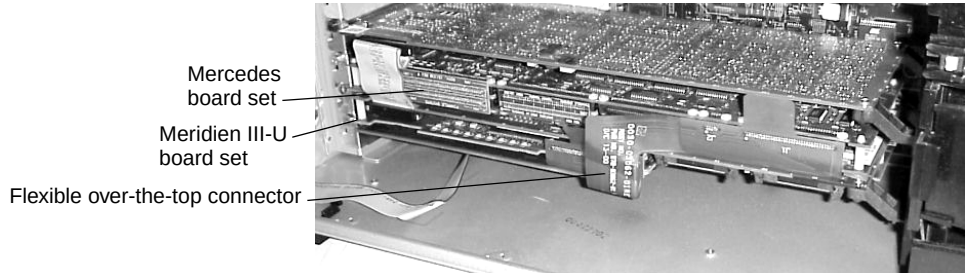



**Figure 4-7 Mercedes and Meridien III-U Daughter Board**

3. Orient the flexible over-the-top connector as shown in Figure 4-7, and then carefully seat the flexible over-the-top connector into the daughter board and Mercedes connectors.

The device driver is installed when the Avid editing product is installed.

### Installing the Genie Effects Board

The Genie effects board is available equipment on Avid Composer products systems and specific versions of Avid Xpress systems. Interconnection between the Genie effects board and the Meridien III digital media daughter board is accomplished with a newly designed flexible over-the-top connector.

1. Ensure that the Meridien III digital media board set has been assembled and installed in the system in the same way as the Meridien III-U digital media board set (see Figure 4-4).
2. Install and secure the Genie effects board into the PCI slot recommended in the product board configuration tables.
3. Orient the flexible over-the-top connector in the same way as was done for the Mercedes effects board (see Figure 4-7), and then carefully seat the flexible over-the-top connector into the daughter board and Genie connectors.

The device driver is installed when the Avid editing product is installed.

## Removing the Flexible Over-the-Top Connector

Although the flexible over-the-top connector has tabs, you should not use the tabs alone to remove it from the digital media board set. Using your thumb and forefinger on both hands placed at the locations shown in Figure 4-8, gently pull the flexible over-the-top connector from the Mercedes or Genie effects board, and then from the Meridien digital media board set.

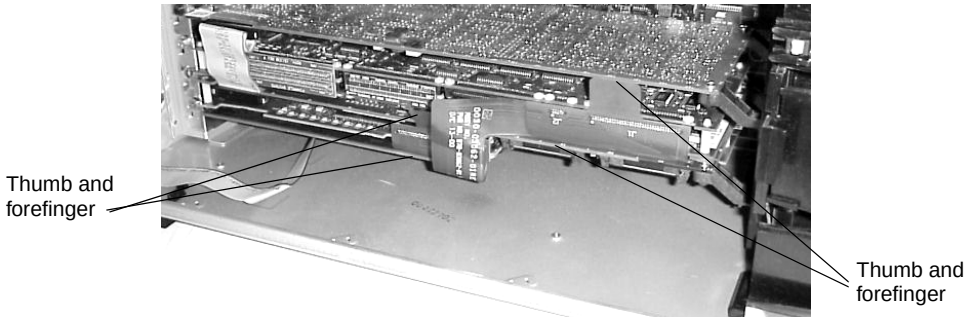



**Figure 4-8 Removing the Flexible Over-the-Top Connector**

## Installing the Meridien Display Controller Board

The Meridien display controller board is a standard dual-head graphics adapter with a special DMA pixel engine required for Avid applications.

**Avid now ships a new Meridien display controller board, EDC4. The new display controller board has EDC4 labeled on the top of the metal PCI bracket (see Figure 4-9). You can see the metal PCI bracket externally at the rear of the system. The previous display controller boards have no label and need a different driver than the EDC4. Drivers for the EDC4 and other display controller boards ship with the Avid software. Installing the correct software is explained in "Installing the Display Controller Board Driver" on page 7-7.**

**Remove the AGP graphics board from the system before installing the Meridien display controller board.**

1. Check the metal PCI bracket on the Meridien display controller board *before* you install it because you need to know which Meridien display controller board you have when you install the driver in "Installing the Display Controller Board Driver" on page 7-7.

2. Install and secure the display controller board into the PCI slot recommended in the product board configuration tables.
3. Attach one end of the cable (explained in "Installing the Meridien III-U Digital Media Board Set" on page 4-16) to the display controller board cable header (see Figure 4-9), and the other end to the Meridien digital media board set. Each end of the cable is keyed to facilitate proper installation.

**Be careful to properly align the cable ends into the connectors, and do not force the connections.**

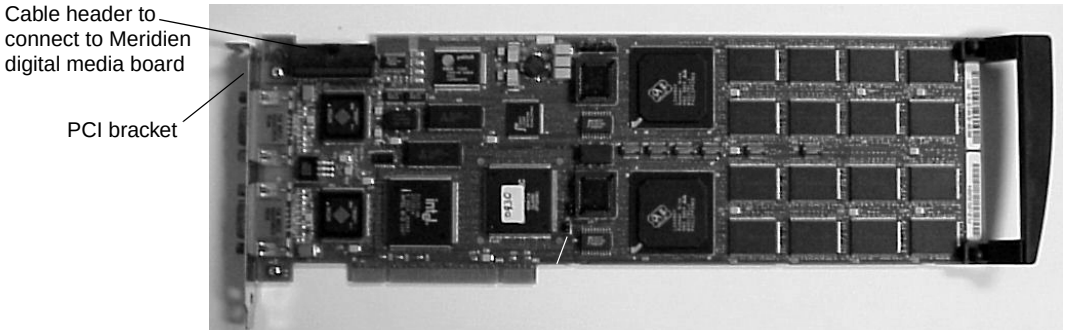



**Figure 4-9 One of the Meridien Display Controllers**

# Removing and Installing the Fan

Although you will most likely be installing the fan instead of removing it, this section was written to include removal and installation in case you purchase a system already configured by Avid. If you are only installing the fan, see "Installing the Fan" on page 4-23.

This section explains how to remove and install the fan from the IBM 6866 system. Before you start to remove or install the fan, you *must* make sure of the following:

- The system was turned off in a proper manner.
- The power cord is removed from the rear of the system.

## Removing the Fan

To remove the fan:

1. Press the Key-lock button on the left side of the front bezel, and using the indented portion of the side cover, slide the side cover toward the rear of the system (see Figure 4-10).

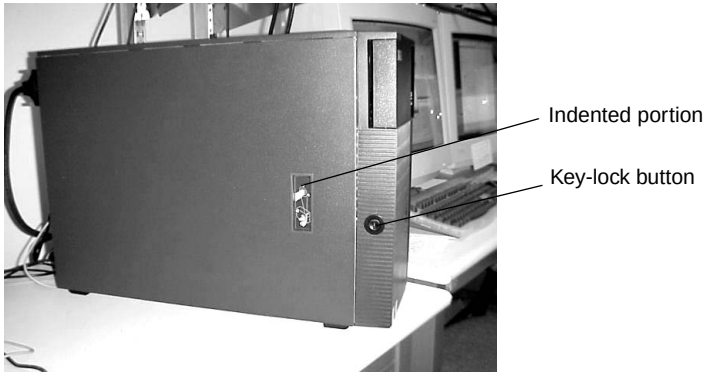



**Figure 4-10 Removing the Side Cover**

2. Lift the side cover from the system.
3. Lay the system on its right side.
4. Unplug the fan (see Figure 4-11).

*Avid uses one of the six power plugs available for internal disks. This changes the maximum number of internal 1.0-inch disks from six to five.*

5. Loosen (do not remove) the two wing nuts that hold the movable extension in place.

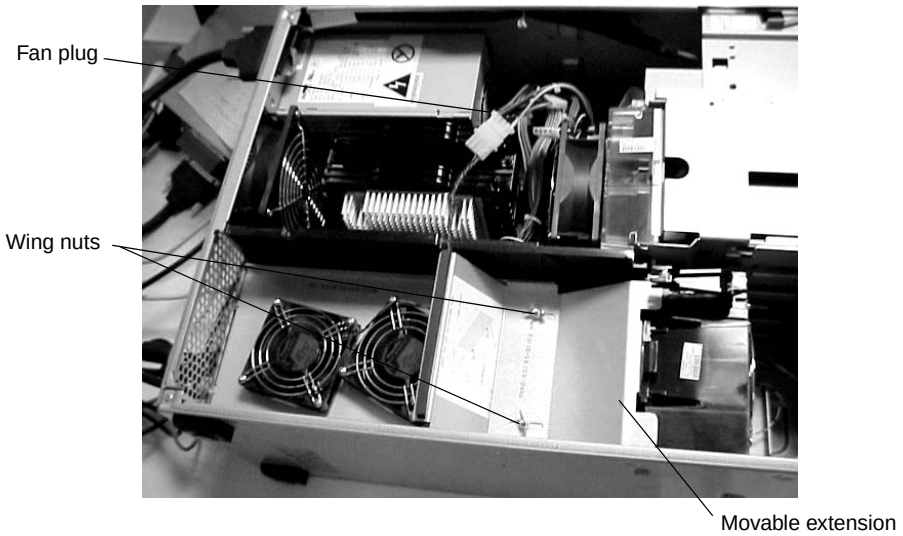



**Figure 4-11 Fan in the System**

6. Push the movable extension toward the rear of the system and remove the fan.

## Installing the Fan

To install the fan:

1. Loosen the two wing nuts and make sure the movable extension is as far back as it can go as shown in Figure 4-12.
2. Place the two fan tabs, located at the rear of the fan, into the lowest holes of the rear airflow grate. There is an illustration on the fan that shows the actual insertion points for the tabs (see Figure 4-12).

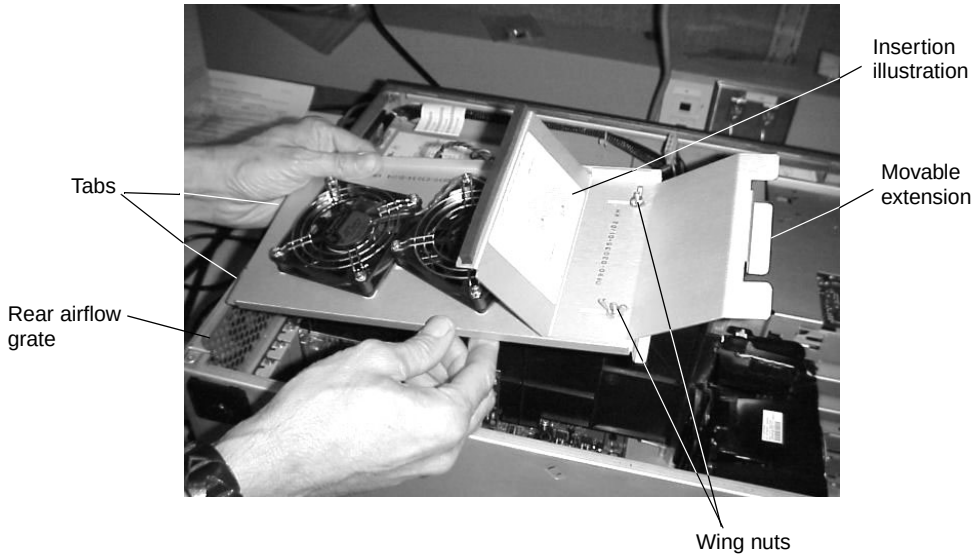



**Figure 4-12 Fan Tab Location**

3. Gently press the fan portion onto the board set.
4. While holding the fan portion in place so the tabs don't move, extend the movable extension toward the front of the system making sure the middle piece of the extension goes under the plastic while the two outer pieces go over the top (see Figure 4-13).

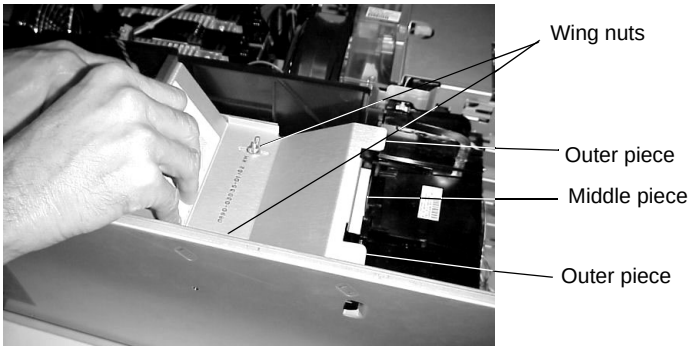



**Figure 4-13 Extending the Fan**

5. Check that the tabs are still in place and the extension is as far forward as possible, then tighten the two wing nuts.
6. Plug the power connector into one of the available disk drive power connectors in the system (see Figure 4-14).

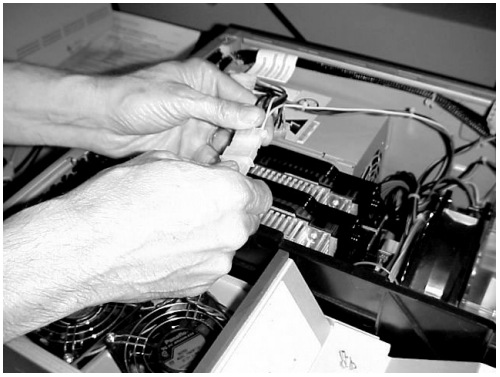


**Figure 4-14 Connecting the Fan Power**

7. Replace the side cover.

# CHAPTER 5

# *Connecting the Remaining Avid Devices*

Your system should now have the Avid hardware board set installed. You now need to connect the remaining Avid devices to the system before you install the Avid software application.

This chapter explains what needs to be connected and either provides instructions on how to connect the device, or points you to the proper documentation for the information.

This chapter contains the following sections:

- Connecting the Application Key (Dongle)
- Connecting the Meridien I/O Box
- Connecting the 888 I/O and Speakers
- Connecting the Display Monitors
- Connecting Drives and Other Devices

# Connecting the Application Key (Dongle)

The application key, commonly referred to as a dongle, allows the Avid software to run on your system. The application key must connect to the parallel port at the rear of the system, but allows you to connect another parallel device to the port by connecting the device to the female portion of the application key. Figure 5-1 shows how to connect the application key.

*If you connect another device to the dongle, make sure the device is output only. If your printer has the ability to send information back to the system, you should disable this feature to ensure proper function of the dongle.*

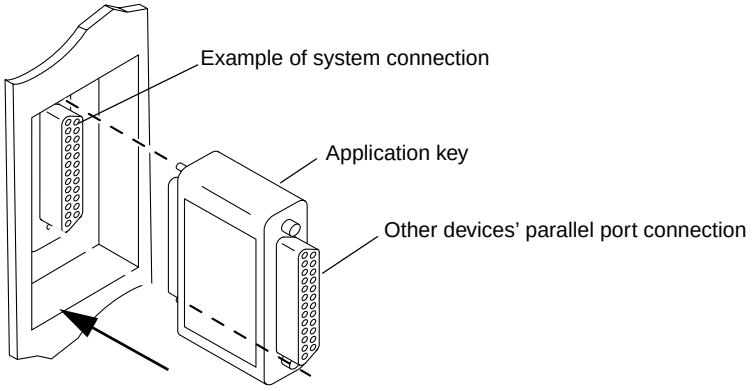



**Figure 5-1 Application Key Connection**

**Be careful that you do not lose the application key. Your Avid software does not function without it. If you lose your application key, you must purchase another key from Avid. Due to the replacement cost of the application key, Avid recommends that you insure the application key for the full market cost of your system.**

# Connecting the Meridien I/O Box

The Meridien I/O box is a standalone box that contains the audio and video I/O boards. You connect video equipment to the Meridien I/O box and audio equipment to the audio I/O device. The Meridien I/O box is connected to the PC by a 9.8-foot (3-meter) digital data cable.

To connect the Meridien I/O box to the IBM 6866 system:

1. Locate the 9.8-foot (3-meter) digital data cable in the hardware kit.
2. Connect one end of the digital data cable to the Meridien I/O box at the system interface connector shown in Figure 5-2.

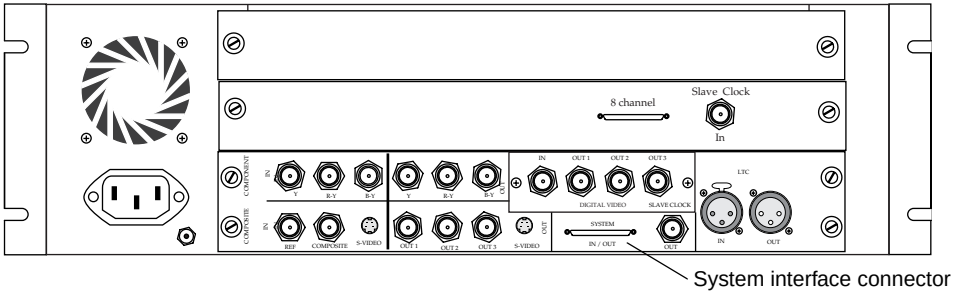



**Figure 5-2 Meridien I/O Box to System Cable Connection**

3. Connect the other end of the digital data cable to the connector labeled M (main) on the digital media board set (see Figure 5-3).

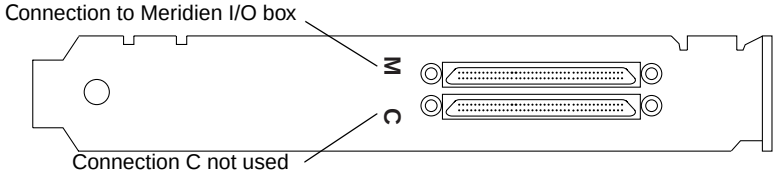



**Figure 5-3 Digital Media Board Set to Meridien I/O Box Cable Connection**

# Connecting the 888 I/O and Speakers

If you have an eight-channel audio interface board, as shown in Figure 5-2, you must connect the audio device (888 I/O) to allow the sync signals to be present when you start the Avid software.

You should also connect the speakers to make sure the audio splitter and speakers function properly. The setup guide for your specific Avid system explains how to connect the 888 I/O and speakers to the Meridien I/O box.

# Connecting the Display Monitors

The Meridien display controller supports two display monitors that should be the same size and vendor brand to minimize configuration difficulties. As of this writing, the recommended monitor size is 17 or 21 inches and should be autosynchronous or multisynchronous.

The IBM 6866 system comes with a high-resolution Bin monitor and a high-resolution Edit monitor. The Bin monitor displays the Windows NT operating system desktop, while the Edit monitor displays the Avid software editing environment.

The two monitor connections to the Meridien display controller board are designated BOOT for the Bin monitor and EDIT for the Edit monitor (see Figure 5-4). Arrange your monitors so the Bin monitor is on the left.

**Make sure you set the monitors to the proper resolutions as explained in the setup guide that ships with each system.**


**Figure 5-4 Display Controller Board**

# Connecting Drives and Other Devices

You should now connect the drives to your system. You might have a group of drives used just for testing, or you might set up the actual drives ordered by the customer. Either way, now is the time to connect them to the system.

Connect the other devices, such as decks or a V-LAN®, to your system if you need to check them. The setup guide for your specific Avid system explains how to connect these devices.

# CHAPTER 6

# *Changing System BIOS and Creating Windows NT Image*

When you turn on the IBM 6866 system, it detects some of the changes you have made and automatically places you into the BIOS. This chapter tells you what you need to do when the system places you into the BIOS and how to create a Windows NT image on the system disk.

This chapter contains the following sections:

- Process Overview
- Changing the System BIOS Settings
- Installing the Windows NT Image
- Restoring the Original Boot Sequence

# Process Overview

Once you know the system is working as shipped, and you have added the memory, the Avid boards, and the fan kit, you need to make the proper changes to the BIOS and create a Windows NT image on the system disk.

You will need to enter the BIOS and perform the following functions:

- Change MIDI settings if needed.
- Change the boot sequence.
- Insert the Avid Setup and Product Recovery CD-ROM into the CD-ROM drive.
- Exit and save the system BIOS settings.

*By going into the BIOS and saving the information, you are also saving the changes the system detected when you added memory and the display controller board.*

Once you have exited and saved the BIOS, the system boots from the Avid Setup and Product Recovery CD-ROM and you must do the following:

- Install the Windows NT image on the system disk.

*You will need the Avid Setup and Product Recovery CD-ROM to install the Windows NT image on the system disk.*

**You should disconnect all external drives from the system prior to continuing with this procedure so you do not lose data. You should only have the original internal drives connected.**

# Changing the System BIOS Settings

This section explains how to change the system BIOS settings for the IBM 6866 system for use with the Avid software application.

**In general, whenever you make changes to the system BIOS settings, *never* select the "Set to Default" option. This might cause problems booting the system.**

You cannot manually enter the system BIOS unless you turn on the system using the Power button and then press F1 at the IBM logo.

You can automatically enter the system BIOS if the system sees a different video board (amount of memory has changed on the video board) or if it senses that the amount of main memory has changed from the previous time power was applied.

If you haven't changed the memory or added a different video board, you must manually enter the system BIOS. To make sure you get to the system BIOS, the instructions explain how to manually enter the system BIOS.

*You would normally press F1 when the "Press F1" message appears on the screen. However, the processor speed might cause the F1 message to go by very quickly or not at all. You should start pressing F1 right after you turn on the system.*

*Once you enter the system BIOS, how you move, select, and exit are explained at the bottom of the screen.*

To enable MIDI devices and change the boot sequence:

1. Turn on the system using the Power button and press F1.

   You are placed into the system BIOS at the Configuration/Setup menu (Main menu) after the execution of the SCSI BIOS because you pressed F1 or the system automatically placed you there.

2. If you need to enable the MIDI port, continue to step 3. If you do not need to enable the MIDI port, go to step 8.
3. Press the Down Arrow key to reach the Devices and I/O Ports menu selection and press Enter.

   The Devices and I/O Ports menu appears.
4. Press the Down Arrow key to reach the Audio Setup menu selection and press Enter.

   The Audio Setup menu appears.
5. Press the Down Arrow key to reach the MIDI port selection.
6. Enable the MIDI selection by pressing the Left Arrow or Right Arrow keys until you see IRQ5. If you see a yellow asterisk next to the IRQ selection, this means there is some type of hardware conflict and the IRQ cannot be used.

*To enable the MIDI function, you must do more than just change the system BIOS setting that enables the MIDI devices. A change in the MultiMedia Control Panel setting and installation of the driver must occur. These changes are performed when you create the Windows NT image from the Avid Setup and Product Recovery CD-ROM.*

7. Press the Esc key to return to the Main menu.
8. Press the Down Arrow key to reach the Start Options menu selection and press Enter.

   The Start Options menu appears.
9. You are automatically placed at the Startup Sequence selection. Press Enter.
10. Press the arrow keys to select the following startup devices under the Primary Startup Sequence section:
    - First startup — Diskette (floppy) drive 0
    - Second startup — CD-ROM
    - Third startup — Hard disk 0

11. Press the Esc key to return to the Main menu.

*Make sure there is no floppy disk in the floppy drive.*

12. Insert the Avid Setup and Product Recovery CD-ROM into the CD-ROM drive.
13. Press the Down Arrow key to reach Exit Setup and press Enter.
14. Save and exit the system BIOS settings as explained on the screen.

# Installing the Windows NT Image

As the boot procedure continues the Avid Setup and Product Recovery CD-ROM is booted.

You are placed in an MS-DOS® screen and receive the following four choices when installing the Windows NT image:

- 1 — Perform a full recovery of the complete disk.
- 2 — Perform a partial recovery of only the C partition.
- 3 — Perform a partial recovery of only the D partition.
- 4 — Exit from the process without doing any recovery.

Depending upon the recovery selected, you should take the following into consideration:

- You must reinstall the Avid software application after you perform any recovery.
- If you select 1 or 2, all data on the C partition, including applications installed after the system was built, will be destroyed.
- You should attempt to backup all data on drive D prior to using partial recovery of only drive C in case something happens with the drive itself (C and D are actually the same drive, just a different partition).

**You will be warned two times during the following procedure that you are about to destroy data on all, or parts, of hard drive 0.**

To perform a complete recovery (image the complete disk):

1. Press the arrow keys to highlight choice 1 (full recovery) and press Enter.

   You will be asked if you really want to continue, because this destroys data on hard drive 0.

2. Answer by pressing the Y key. Do not press Enter.

   You will be asked again if you really want to continue, because this destroys data on hard drive 0.

3. Answer by pressing the Y key again. Do not press Enter.

   At this time the program will take about 5 minutes to place the Windows NT image on hard drive 0.

*To image the disk, the program fools the system into thinking the CD-ROM is drive A (floppy drive). Do not let this bother you during the installation.*

   The image takes about 5 or 6 minutes to install. You will see a "Setup Complete" message once the image has been completely written.

4. **Remove the CD-ROM from the CD-ROM drive**.
5. Press Ctrl+Alt+Delete. This continues the boot sequence.
6. Select the Windows NT 4.0 option during the boot sequence.
7. Press the arrow keys to select Original Configuration and press Enter.

   The system continues to boot for the first time since you created the image. You will be asked questions relative to the software licensing of the Windows NT operating system.

8. The Welcome to the Setup Wizard window opens. Click Next.

9. You are asked to accept the registration agreement shown in the window. Select “I accept” and click Next.

   You are asked for the name of the company and the specific organization the system is being sold to.

10. Type the name of the company in the appropriate text box (the organization text box is optional) and click Next.

    You are asked for the name of the computer.

11. Type a computer name in the appropriate text box and click Next.

    You are asked to select a password, but do not select one.

12. Click Next.

    The Windows NT Workstation Setup window opens.

13. Click Finish. This automatically reboots the system.

14. During the boot procedure of the Windows NT operating system select the following:

    - The Windows NT 4.0 operating system
    - The Avid hardware profile

*You might receive an event window stating that a driver did not install; do not worry about this.*

15. Log in to the system.
16. When asked for a password press Enter.

You need to restore the system BIOS to its original boot sequence.

# Restoring the Original Boot Sequence

You must now restore the original boot sequence so you don't attempt to boot from a CD-ROM that you accidentally left in the system. This is not critical, but should be done to bring the state of the system back to normal.

To restore the original boot sequence:

1. Press Ctrl+Alt+Delete, click Shut Down, and then select the Shutdown option (not the Shutdown and Restart option).

   Turn off the system and leave it off for at least 5 seconds.

**When you press the Power button to turn off the system, it takes 4 or 5 seconds to actually turn off. Do NOT press the button again to try and turn off the system or the system will turn back on.**

2. Turn on the system using the Power button and press F1 when asked for at the IBM logo.

   You are placed into the system BIOS at the Configuration/Setup menu (Main menu) after the execution of the SCSI BIOS.

3. Press the Down Arrow key to reach the Start Options menu selection and press Enter.

   The Start Options menu appears.

4. You are automatically placed at the Startup Sequence selection. Press Enter.

5. Press the arrow keys to select the following startup devices under the Primary Startup Sequence section:

   - First startup — Diskette (floppy) drive 0
   - Second startup — Hard disk 0
   - Third startup — CD-ROM

6. Press the Esc key to return to the Main menu.

7. Press the Down Arrow key to reach Exit Setup and press Enter.

8. Save and exit the system BIOS settings as explained on the screen.

   You continue with the boot sequence.

9. During the boot procedure of the Windows NT operating system select the following:
   - The Windows NT 4.0 operating system
   - The Avid hardware profile
10. Log in to the system.
11. When asked for a password press Enter.

*Your system might perform a checkdisk during the boot procedure. If it does, let it finish, it will not harm the system.*

The next chapter explains how to install the Avid application and the appropriate software drivers.

# CHAPTER 7

# *Installing and Verifying Avid System Software*

The proper Avid hardware board set and Windows NT operating system is now installed. You now need to install and verify the Avid software, and prepare the system for the customer.

This chapter contains the following sections:

- Installation Overview
- Installing the Avid System Software
- Installing Disk Controller Drivers
- Verifying Software Installation
- Changing the Hardware Profile
- Testing the System
- Using MediaDock LVD Manager Software
- Testing the Avid Software
- Creating Troubleshooting Disks
- Uninstalling the Avid Application
- Antivirus Applications

# Installation Overview

The Windows NT operating system is now installed. You now need to do the following:

- Install the Avid system software — Find the application CD-ROM for your system.
- Install, and activate if needed, the following software:
  - Install the necessary device drivers for your SCSI and F/C disk boards. Find the floppy disks that contain the drivers for your disk boards.
  - Install and activate the display controller board driver.
- Verify that all drivers were installed and started by the system.
- Change the hardware profile.
- Test the system.
- Test the Avid software.
- Create repair disks for troubleshooting.
- Uninstall the Avid application.
- Understand antivirus applications.

# Installing the Avid System Software

Use the release notes for your specific system to install the Avid system software. Note the recommendations that suggest:

- Which partition you place the application and data files
- That you do *not* restart the system when asked
- That you close the Install Wizard window when complete

*It is very important that you use the release notes and the CD-ROM that ships with your specific system to install the Avid system software. The release notes tell you how to install the Avid system software, and also explain any last minute details relating to problems or new procedures that you must follow during the installation of the Avid system software.*

# Installing Disk Controller Drivers

Install or check the device drivers for all installed disk controllers. The drivers were shipped on floppy disks with each controller ordered. You should use the driver on the floppy disk instead of the driver located on a Windows NT CD-ROM for all disk controllers supplied by Avid. The installation procedures are for the following disk controllers:

- ATTO Technology ExpressPCI UL3D/160 dual-channel — Express driver
- Emulex LP850 Fibre Channel — LP6NDS35 driver

*As versions of the ATTO and Emulex drivers change, they are updated on the floppy disk that ships with the controller. If you need to know the current version of a driver call Avid Customer Support.*

## Installing the ATTO ExpressPCI Driver

If the system contains an ATTO Technology ExpressPCI UL3D dual-channel Ultra3 160 LVD SCSI controller, you should use this procedure to install or update the Windows NT device driver. The proper ATTO Technology device drivers are not included with the Windows NT Workstation 4.0 or Windows NT Service Pack distributions and must be installed separately. Only follow this procedure if you have the ATTO UL3D controller installed in the system.

Driver Name: ExpressPCI.inf

Use the following procedure to install or update the driver:

1. Open the Control Panel and double-click the SCSI Adapters icon.
2. From the SCSI Adapters dialog box, click the Drivers tab and check for an existing ExpressPCI adapter UL3D dual-channel driver.
3. If the driver is not present go to step 4. Otherwise, select the driver and click the Remove button. Click Yes to the "Are you sure you want to remove this driver?" dialog.
4. Click the Add button.
5. Click the Have Disk button in the Install Driver dialog box.
6. Insert the ExpressPCI floppy disk.
7. At the Install From Disk dialog box click the Browse button.
8. Browse the floppy disk until you find the ExpressPCI.inf file (it should be at the root level). Click this file and then click Open (this gives the path for the driver installation).
9. Click OK in the Install From Disk dialog box.
10. In the Install Driver dialog box select the ExpressPCI adapter - UL3D dual-channel by clicking the file to highlight the driver, and then clicking OK.

*If Avid Startup starts, close the window and continue.*

11. A dialog box appears asking if you want to restart the system. Click No.
12. The SCSI Adapters dialog box now shows the UL3D dual-channel controller. Click OK.
13. The driver is copied automatically and the system must be restarted to install the driver.
14. Do *not* click Yes to restart the system unless this is the last driver you are installing.
15. **Remove the floppy disk and the application CD-ROM (if needed) from the system**.

## Installing the Emulex LP850 Fibre Channel Driver

If the system contains an Emulex LightPulse LP850 Fibre Channel controller, you should use this procedure to install or update the Windows NT device driver. The proper Emulex Fibre Channel device drivers are not included with the Windows NT Workstation 4.0 or Windows NT Service Pack distributions and must be installed separately. Only follow this procedure if you have the Emulex LP850 controller installed in the system.

Driver name: LP6NDS35

Use the following procedure to install or update the driver:

1. Open the Control Panel and double-click the SCSI Adapters icon.
2. From the SCSI Adapters dialog box, click the Drivers tab and check for an existing Emulex LP6000/LP7000/LP8000/LP850 PCI-Fibre Channel Adapter driver.
3. If the driver is not present go to step 4. Otherwise, select the driver and click the Remove button. Click Yes to the "Are you sure you want to remove this driver?" dialog.

4. Click the Add button.
5. Click the Have Disk button in the Install Driver dialog box.
6. Insert the LP6/7/8 NTSCSI Miniport Driver floppy disk.
7. At the Install From Disk dialog box click the Browse button.
8. Browse the floppy disk until you find the OEMsetup.inf file (it should be at the root level). Click this file and then click Open (this gives the path for the driver installation).
9. Click OK in the Install From Disk dialog box.
10. In the Install Driver dialog box select the Emulex LP6000/LP7000/LP8000/LP850 PCI-Fibre Channel Adapter by clicking the file to highlight the driver, and then clicking OK.
11. The driver is copied automatically and the system must be restarted to install the driver.
12. Do *not* click Yes to restart the system unless this is the last driver you are installing.
13. Click OK in the SCSI Adapters dialog box.
14. **Remove the floppy disk and the application CD-ROM (if needed) from the system.**

## Installing the Display Controller Board Driver

Although the disk image has already installed a display controller board driver, you should install the Avid display controller driver using the following procedure, and then reboot the system when instructed. This ensures that you have the latest driver available.

**Avid now ships a new Meridien display controller board, EDC4. The new display controller board has EDC4 labeled on the top of the metal PCI bracket (see Figure 4-9). You can see the metal PCI bracket externally at the rear of the system. The previous display controller boards have no label and need a different driver than the EDC4. Drivers for the EDC4 and other display controller boards ship with the Avid software.**

1. Right-click the desktop and choose Properties.

   The Display Properties dialog box appears.

2. Click the Settings tab.
3. Click the Display Type button to open the Display Type dialog box.
4. Click the Change button to open the Change Display dialog box.
5. Click the Have Disk button to open the Install From Disk dialog box.
6. Click the Browse button to go to C:\Program Files\Avid.
7. Determine if you have the EDC4 display controller board (see the caution statement prior to this procedure).
8. Perform one of the following steps:
   - If you do *not* have the EDC4 display controller board, click EDCInstall.
   - If you do have the EDC4 display controller board, click EDCRev4Install.

9. Click the driver in the folder you selected from one of the following:
   - AvidEDC.inf from EDCInstall
   - Rev4.inf from EDCRev4Install
10. Click Open.
11. Click OK in the Install From Disk dialog box.

    The Change Display dialog box appears.
12. Select the proper board and click OK.

    The Avid display controller board appears as a third-party choice.
13. Click the Yes button to accept the Avid display controller selection.
14. You will receive a message stating a successful installation. Click OK.
15. Click the Close button to close the Display Type dialog box.
16. Click the Close button to close the Display Properties dialog box.

    A dialog box appears instructing you to restart the system.
17. **Remove any floppy disk or CD-ROM that remains on the system.**
18. Click Yes to initiate a system shutdown.
19. Allow the system to restart normally.
20. During reboot select the following:
    - The Windows NT 4.0 operating system
    - The Avid hardware profile
21. Log in using the Administrators account with no password. Windows NT will open the Display Control Panel automatically.

*If a driver did not install properly you would have seen an error during the boot procedure noting that a driver did not install properly. Use the Event Viewer to determine which driver did not install and attempt to reinstall the driver and restart the system.*

*For single-monitor systems (Avid Xpress) only, open the Avid Display Control Panel, click the Desktop tab, click the Normal Mode button, and then complete the procedure.*

22. Choose True Color on the Color Palette menu and set the refresh rate to 75 Hz.
23. Set the Desktop Area slider to 2048 x 768 for two-monitor systems and 1024 x 768 for single-monitor systems.
24. Click the Test button and the system displays the resolution selected.
25. Click Apply to apply the change, and then click OK.

# Verifying Software Installation

Since you restarted the system, you should verify that all the newly installed drivers installed properly.

The following procedure includes both the ATTO UL3D controller and the Emulex F/C controller. You will only have one, so skip the board you are missing.

You will verify the following drivers:

- Avid board set device drivers such as:
  - Meridien digital media board driver
  - EditDMA driver
  - 3D DVE effects driver (if applicable)
  - Sentinel® driver, used by the application key (dongle)
- Disk controller drivers

# Verifying Avid Board Set Drivers

The following subsections explain how to verify the installation of Avid board set drivers.

### Verifying the Meridien Digital Media Board Driver

Verify that the Meridien digital media board device driver started by opening the Devices Control Panel and looking at the APMPhxNTDriver status. Use the following procedure to check the status of the driver:

1. Open the Control Panel and double-click the Devices icon.
2. Use the scroll bar to find the APMPhxNTDriver and click to select it.
3. Check the Status column for a device status of Started. This indicates that the driver installed and initialized properly. Click the Startup button. Under the Startup Type section ensure that the radio button marked System is selected.
4. Click OK.

### Verifying the EditDMA Driver

Verify that the EditDMA device driver started by looking at the APMEditDMA status. Use the following procedure to check the status of the driver:

1. Open the Control Panel and double-click the Devices icon.
2. Use the scroll bar to find the APMEditDMA driver and click to select it.
3. Check the Status column for a device status of Started. This indicates that the driver installed and initialized properly. Click the Startup button. Under the Startup Type section ensure that the radio button marked Automatic is selected.
4. Click OK.

### Verifying the 3D DVE Effects Driver

Verify that the 3D DVE effects device driver started (if applicable) by looking at the Genie/Mercedes status. Use the following procedure to check the status of the driver:

1. Open the Control Panel and double-click the Devices icon.
2. Use the scroll bar to find the Genie driver and click to select it.
3. Check the Status column for a device status of Started. This indicates that the driver installed and initialized properly. Click the Startup button. Under the Startup Type section ensure that the radio button marked System is selected.
4. Click OK.

### Verifying the Sentinel Driver

Verify that the Sentinel device driver started by opening the Devices Control Panel and looking at the Sentinel status. Use the following procedure to check the status of the driver:

1. Open the Control Panel and double-click the Devices icon.
2. Use the scroll bar to find the Sentinel driver and click to select it.
3. Check the Status column for a device status of Started. This indicates that the driver installed and initialized properly. Click the Startup button. Under the Startup Type section ensure that the radio button marked Automatic is selected.
4. Click OK.

# Verifying and Changing Disk Controller Drivers Status

The following subsections explain how to verify the installation of the disk controller drivers and how to change the status (if needed in the hardware profile).

### Verifying and Changing the ATTO ExpressPCI UL3D Driver Installation and Status

Use the following procedure to check the status of the ATTO driver only if the board is in the system:

1. Open the Control Panel and double-click the Devices icon.
2. Use the scroll bar to find the Express driver and click to select it.
3. Check the Status column for a device status of Started. This indicates that the driver installed and initialized properly.
4. Click the Startup button.
5. Under the Startup Type section ensure that the radio button marked Boot is selected.
6. Click the Hardware Profile button.

   The Device window opens.
7. Select Original Configuration and click the Disable button.

   You should now see Express disabled for the Original Configuration and enabled for the Avid Configuration.
8. Click OK.
9. Click the Close button.

### Verifying and Changing the Emulex LP850 F/C Driver Installation and Status

Use the following procedure to check the status of the Emulex driver only if the board is in the system:

1. Open the Control Panel and double-click the Devices icon.
2. Use the scroll bar to find the lp6nds35 driver and click to select it.
3. Check the Status column for a device status of Started. This indicates that the driver installed and initialized properly.
4. Click the Startup button.
5. Under the Startup Type section ensure that the radio button marked Boot is selected.
6. Click the Hardware Profile button.

   The Device window opens.
7. Select Original Configuration and click the Disable button.

   You should now see LP6NDS35 disabled for the Original Configuration and enabled for the Avid Configuration.
8. Click OK.
9. Click the Close button.

# Changing the Hardware Profile

The image you placed on the disk contains two hardware profiles, Avid Configuration and Original Configuration. The Avid Configuration should be the default hardware profile.

To make the Avid Configuration the default hardware profile:

1. Open the Control Panel and double-click the System icon.
2. Click the Hardware Profiles tab.
3. Click Avid Configuration to highlight the Avid hardware profile.
4. Use the arrow keys to move Avid Configuration above Original Configuration in the window.
5. Click Apply and then click OK.

The Avid Configuration hardware profile will now be the default hardware profile the next time you boot the system.

# Testing the System

Testing the Avid system involves running tests on the Avid board set, running StorEx on drives attached to the system, and if possible, starting the Avid software and performing some basic operations to see if the drives function properly.

## Running Avid System Test Pro

The Avid setup guide that ships with the system contains a section that explains how to run Avid System Test Pro (AST) to test the Avid board set. You should restart the system prior to running AST. Help is also available for AST.

## Running Avid StorEx

The Avid setup guide that ships with the system contains a section that explains how to run Avid StorEx. If your disk drives need to be formatted and partitioned, see the setup guide that ships with your Avid system.

# Using MediaDock LVD Manager Software

If you are connecting an Avid MediaDock LVD to your IBM 6866 system, you must be aware that the MediaDock LVD Manager software requires a section of the EZ-SCSI software to run properly.

The EZ-SCSI software can be found on the device driver and the IBM Enhanced Diagnostics CD-ROM that ships with the system. The EZ-SCSI software provides the aspi32 driver that is required by the MediaDock LVD Manager software.

To install the EZ-SCSI software on the IBM 6866 system:

1. Place the IBM Enhanced Diagnostics CD-ROM into the CD-ROM drive.
2. Double-click the My Computer icon.
3. Double-click the CD-ROM icon.
4. Browse to:

   *CD-ROM drive letter*:\drivers\adaptec\utility
5. Double-click Setup.exe to start the installer.
6. Follow the on-screen prompts and accept the defaults.

You must restart the system to activate the driver.

# Testing the Avid Software

Depending upon how familiar you are with the Avid software, you should restart the system and attempt to do the following:

- Click the Start button, point to Programs, and then select Avid.
- Digitize a portion of media.
- Construct a simple sequence.
- Create a title.
- Create and test a 3D effect if you have a 3D effects board set.

# Creating Troubleshooting Disks

Since the system is now installed and tested, you should create the following floppy disks to help the customer create a new system from scratch, or boot the system if part of the root directory is deleted:

- Windows NT boot floppy disk
- Windows NT repair floppy disk

## Creating a Windows NT Boot Floppy Disk

Should a problem arise with the system disk master boot record or from an accidental deletion of the files in the root directory (C:\), it might be possible to access the system disk to correct the problem without having to restore from the Avid Setup and Product Recovery CD-ROM or the Windows NT distribution media if you have a Windows NT boot floppy disk. A boot floppy disk must be created from a functional Windows NT system.

*This is not a replacement for a proper backup of the system disk.*

To create a Windows NT boot floppy disk:

1. Insert a high-density floppy disk into drive A.
2. Right-click on the Floppy Drive icon and select Format.
3. Format the disk using Full Format.
4. Open Windows NT Explorer and click on the root folder (usually C:\).
5. Check the Options setting under the View menu.
6. Select the button labeled ShowAll Files.
7. Select the file properties for each of the following files and clear the System and/or Hidden attribute and copy them to the floppy disk:

   BOOT.INI

   NTDETECT.COM

   BOOTSECT.DOS (only on systems with MS-DOS or Windows 9*x* dual-start installations)

   NTLDR

   NTBOOTDD.SYS (some SCSI boot drives only). If this file is in the root folder, copy it to the floppy disk. If this file does not exist, it is not required by the system

## Creating a Windows NT Repair Floppy Disk

The Windows NT repair disk is vital to the successful restoration of a user system in the event of a damaged operating system component. The Emergency Repair Disk (ERD), as it is sometimes called, should be updated anytime a change to the operating system occurs. This can happen whenever hardware is added or applications are installed. The ERD is also used to replace missing or damaged system files, restore damaged or incorrect registry information, or rebuild the system startup environment.

*Since you are creating this floppy disk after all of your Avid software has been installed, you are creating what can be called an Avid operational ERD.*

The repair disk does not restore applications or device drivers. Instead, it holds copies of the user environment, software associations, passwords, and information about the system configuration.

*The ERD is not a replacement for regular backups. It provides enough recovery to restore a system to a bootable state only.*

To create a Windows NT repair floppy disk:

1. Start Windows NT 4.0 and log in to an account with administrative privileges. If you do not have administrative privileges, see your system administrator to get privileges.
2. Click the Start button and select Run. The Run window opens.
3. Type **`rdisk /s`** and press OK.
4. Follow the instructions to create a repair disk.
5. Store the repair disk in a safe, dry, static-free location, and make sure the customer knows where the floppy disk is located.
6. If you have a problem, search for Emergency Repair Disk in the Windows NT Help.

# Uninstalling the Avid Application

When an Avid system is ordered directly from Avid, Avid removes the software application prior to shipment. This allows the customer to install the application and accept the software agreement. However, as a reseller you might deliver the system "ready to go."

The following procedure explains how to *individually* uninstall the Avid software applications without removing the needed drivers:

1. Open the Control Panel and double-click the Add/Remove Programs icon.
2. Find and select Symphony (or Media Composer or Xpress).
3. Click the Add/Remove button and click Yes when asked if you want to remove Symphony (or Media Composer or Xpress), and follow the instructions on the screen.
4. You should click No to any shared file statements that are sent to the screen.
5. Repeat steps 1 to 4 for the Avid Codec and for AvidADI.

# Antivirus Applications

When you deliver the system to a customer you should explain how antivirus programs containing autoscanning features can interfere with the operation of an Avid application such as Avid Symphony, Avid Media Composer, or Avid Xpress.

For example, some antivirus programs can be configured to run in the background and scan *all* files for viruses whenever they are opened, copied, or moved. Since virus scanning is a processor- and disk-intensive activity, it can interfere with digitizing and playing real-time effects in an Avid application.

Avid recommends that you do not scan *all* files or schedule any background task like virus scanning when you are using an Avid application.

File deletion protection utilities also consume system resources and could interfere with the proper operation of an Avid application. These utilities automatically back up any files that are deleted, even temporary files created and deleted by the Avid application. This consumes a large amount of disk space.

# CHAPTER 8

# *Troubleshooting*

This section describes problems you might encounter when integrating the IBM 6866 platform, and some possible explanations and/or fixes for these problems.

*The* User Guide IntelliStation Z Pro Type 6866 Professional Workstation *provides a troubleshooting chapter for problems that can occur during power-up self-test (POST) or during the boot procedure. You should take advantage of this document.*

This chapter contains the following sections:

- A Troubleshooting Toolbox
- Display Monitor Colors or Resolution Incorrect
- Second Display Monitor Not Enabled
- Striped Sets Cannot Be Seen on System

# A Troubleshooting Toolbox

To troubleshoot the system effectively you should consider creating a "toolbox" of useful software, utilities, and tools that you carry with you when installing or troubleshooting Avid's Windows NT editing systems. An Avid Windows NT toolbox should consist of:

- *User Guide IntelliStation Z Pro Type 6866 Professional Workstation*
- Avid Setup and Product Recovery CD-ROM
- Windows NT Workstation 4.0 CD-ROM (or whatever the version used on your system)
- Disk controller drivers:
  - Emulex Fibre Channel board driver
  - ATTO dual-channel and single-channel drivers
- Bootable MS-DOS floppy disk with generic CD-ROM driver
- Windows NT boot disk
- System-specific Emergency Repair Disk (ERD)
- System-specific disk configuration disk
- Avid software CD-ROM
- Saved project and settings floppy disk
- Wrist strap
- Flat-head and Phillips screwdrivers

# Display Monitor Colors or Resolution Incorrect

**Problem**

Text and graphics appear in 640 x 480 resolution with 16 colors only.

**Explanation/Fix**

Windows NT booted in base video (VGA) mode, either by user selection, or because no display driver is installed. This is common when the proper display controller board driver has not been installed and started. Refer to "Installing the Display Controller Board Driver" on page 7-7 to learn how to properly install the driver.

# Second Display Monitor Not Enabled

**Problem**

Only the primary display monitor is enabled after booting Windows NT.

**Explanation/Fix**

Listed below are some possible causes/fixes for the problem:

- Ensure the second monitor has power applied.
- Ensure the cabling between the monitor and the display controller is secure and there are no bent pins.
- Try swapping cables between the primary and secondary monitors to see if the problem follows the cable.
- Open the Avid EDC Control Panel, click the Display tab, and ensure that the Multiboard radio button is selected.

# Striped Sets Cannot Be Seen on System

**Problem**

When you move a set of striped drives from system A to system B, system B sees the set of striped drives physically, but cannot see a file system on the striped set.

**Explanation/Fix**

The Windows NT system that creates the striped set is the only system that can see the file system on the striped set because the system updates the System Registry for that striped set and enables the Ftdisk driver (Fault tolerant).

If you move that striped set to another Windows NT system that has never created a striped set, the new Windows NT system can see the set of striped drives, but because the striped set is not in the System Registry and the Ftdisk driver is not enabled, the system cannot see a file system on the striped set.

Avid provides a utility, Disk Mounter, that allows you to create a set of striped drives on one Windows NT system and then move that set of striped drives to another Windows NT system. How to use the utility is explained in the Avid utilities guide that ships with every Windows NT system. The book is small so don't overlook it. If you follow the instructions for the use of Disk Mounter you should have no problems moving striped sets from one system to another.

*You should also use the Disk Mounter utility to store the registry information on the striped set in case you need to rebuild the system using the Avid Setup and Product Recovery CD-ROM. You can then take the registry information from the striped set and place it back into the System Registry in the newly created system.*

# APPENDIX A

# *Regulatory and Safety Notices*

## FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# Canadian ICES-003

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

# European Union Notice

CE

**Declaration of Conformity**
**(According to ISO/IEC Guide 22 and EN 45014)**

| | |
|---|---|
| Application of Council Directives: | 73/23/EEC, 89/336/EEC. |
| Standards to which Conformity is Declared: | EN60950:1992 + A1 + A2 + A3 + A4 + A11<br>CISPR 22:1985 / EN55022:1988 Class A<br>EN55024:1998 + A1 |
| Manufacturer's Name: | Avid Technology, Inc.<br>1925 Andover Street<br>Tewksbury, MA 01876, USA |
| European Contact: | Nearest Avid Sales and Service Office or<br>Avid Technology International B.V.<br>Sandyford Business Center<br>Unit 3,<br>Dublin 18, Ireland |
| Type of Equipment: | Information Technology Equipment |

| | |
|---|---|
| Product Name: | Products for the Windows NT Operating System: Media Composer, Film Composer, Avid Xpress, Avid Xpress DV, Avid Unity, Avid \| DS, NewsCutter, NewsCutter XP, NewsCutter DV, Symphony<br>Products for the Macintosh Operating System: Media Composer, Film Composer, Avid Xpress, Avid Unity<br>Products for the UNIX Operating System: AirPlay, VideoSPACE |
| Base Model Numbers: | None |
| Product Options: | All |
| Year of Manufacture: | 2001 |

(1) Products for the Windows NT Operating System: products were tested in a typical Media Composer, Film Composer, Avid Xpress, Avid Xpress DV, Avid Unity, Avid | DS, NewsCutter, NewsCutter XP, NewsCutter DV, or Symphony configuration.

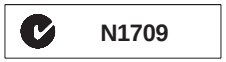
(2) Products for the Macintosh Operating System: products were tested in a typical Media Composer, Film Composer, Avid Xpress, or Avid Unity configuration.

(3) Products for the UNIX Operating System: products were tested in an AirPlay or VideoSPACE configuration.

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards.

George R. Smith, Director of Hardware Design and Development

# Australia and New Zealand EMC Regulations




John Kells, Australian Operations Manager
Avid Technology (Australia)
Unit B
5 Skyline Place
French Forest NSW 2086
Australia
Phone: 61-2-8977-4800

# Taiwan EMC Regulations

**Taiwan EMC Regulations BSMI Class A EMC Warning**

警告使用者:

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。